THE PEDIC ITEMS

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THE HUMAN FOOT

Dr. J. J. Monahan

Notes from Lecture Delivered Before the N. A. C., Minneapolis, Aug. 4, 1919

If there is any one structure of the human body which has almost universally forced itself upon the attention of mankind, that structure is the foot; and it is only when, deformed and aching, it does **force** itself upon our attention that we give it one part of the attention that is its due. Upon the hand, the symbol of our aristocracy, we lavish ointments and jewels, but for the foot, the Cinderella of our household, we have scant respect. Yet the foot, far more than the hand, interposes between man and the lower animals an unbridgeable gulf; the foot, far more than the hand, reveals to science the evolutionary history of the ages. No organization of the whole body is more worthy of care and respect than is the foot, and no organization repays neglect and insult with any more painful penalties than do these same feet.

The foot is a vast subject and, unable to more than touch upon it in the brief time allotted me, I shall take it up under two main heads: first, the **evolution** of the human foot from the lowest vertebrate form; second, the **devolution** of this wonderful structure brought about by mal-treatment, reversion, disease, and accident.

Evolution of Foot

The fin is the lowest type of limb. As to the origin of the fins there are two principal theories—the "gill-arch" or "archipterygium" theory, and the "fin-fold" theory.

The archiptergyium theory assumes the paired fins to have developed from gill-buds which had migrated from their original positions in the gill-regions to the positions occupied by the paired fins. In this new position the gill-buds are assumed to have developed into gill-arches which, in their turn, develop into the simple type of fin seen in the Ceratodus. This simple fin, by a constant increase in parts, evolves finally into the elaborate fin structure from which the elements of the limbs of higher vertebrates are derived.

In short, this theory begins with a gill-bud and by a constant **increase** in the number of parts obtains finally the elaborate fin structure.

The fin-fold theory works from the opposite direction, assuming the elements of the many-rayed fin to **all** have existed in a fin-fold and to have been atrophied or fused in the more simple fins. This fin-fold, which exists in the embryonic fish, is a local outgrowth from the body-wall having within itself those centers of ossification from which all bone structures originate. The permanent fins are formed by the absorption of the superfluous portions fo the fin-fold back into the body-wall.

All this may seem very far from my topic, the human foot, but the connection will soon be clear to you. Much of the pain of the human foot is caused, I believe, by the appearance of extra bone structures. Where did these structures originate? We find them in many of the higher forms of vertebrate life, but in these forms, as well as in man, they appear spasmodically and give every indication of being reappearances of once-atrophied structures. In what early vertebrate form did they normally appear? To find their source we must, apparently, pass over the whole series of advanced evolutionary developments and go back to the very base of supplies—the fin-fold itself.

Specialization tends to reduce rather than to increase the number of parts involved, and in the Lepidosiren we find the fin reduced to a single filament. This fish, eel-like in form, living

in the swamps of the Amazon, and having both gills and lungs, needs neither to swim nor to walk which is doubtless the cause for the reduction of its limbs. That the single-rayed fin of this mud-fish is capable of again developing the atrophied structures and of being the forerunner of more complex forms is shown by the foot structures of the Amphibians.

In the Amphibians we see a regaining of the lost digits. The Amphiuma has two toes and the ankle joints of land limbs. The Proteus shows a further regaining of the lost digits in that it has three toes. In the Salamander we see five toes and an arrangement of the tarsus that strongly resembles the human foot. Since the Salamander is a higher form than the Lepidosiren, Amphiuma, or Proteus, it is obvious that its increased foot structures are due to a reappearance of the foot elements atrophied in the lower forms. In the frog we see a still further increase in these elements.

The foot of the Mexican frog shows, besides the five toes, a well-developed supernumerary structure on the inner side of the tarsus, making six distinct toes in all. The extra digit shows even the different phalanges. Why this extra toe should appear in the frog and not in the Salamander I do not know, but the essential fact is that it **does** appear and proves the conclusion that an ossification center, though atrophied, is never lost, but may bring forth new bone developments under favorable conditions. If this is true of frogs why isn't it true of higher forms as well?

From the Amphibians we will go directly to the mammals making no attempt to include either the birds or the reptiles in this series. The question as to whether the mammals have been derived from a reptilian or an amphibian stock is one which has occasioned much controversy in the scientific world. As far as foot structures are concerned the mammals indicate a derivation directly from the amphibian form without any intervening reptilian step. Judging from other structures as well as the feet, the whole reptilian branch looks far more like an adaptation of the amphibian form to the reptilian habitat than like an evolutionary step in the series that leads to man.

The lowest of the mammalian forms is the Australian duck-bill, an animal having so many peculiar characteristics that it has at various times been placed in several different orders. At present it occupies a position all its own on the very borderland between birds and mammals. Having the egg-laying and hatching habits of birds, as well as the bird's bill; the stinging properties of a snake; the webbed and spreading forefeet of the frog; the marsupial bones of marsupials; the furry coat of the beaver; it has, nevertheless, the **hind-foot** of an animal much higher up in the mammalian scale—the seal. The hind-foot shows plainly all the elements of the human foot, even the arrangement of these elements being, with the exception of the calcaneum, almost identical with the human structure. The calcaneum, however, has a decided outward trend.

As we go upward in the series we see the calcaneum taking more the position seen in the human foot.

In the tarsius the foot, although adapted for grasping, has the calcaneum projecting more backward than outward.

In the orang-utang the calcaneum is small as compared with the rest of the foot. This is doubtless due to the fact that the foot is used almost exclusively as a grasping, rather than as a supporting member. In the elements concerned this foot is the exact counterpart of its human brother, but in the individual development of these elements it shows a marked adaptation to the arboreal life of its owner. The metatarsals are long and greatly curved, so much so that the animal can walk only on the outsides of its feet. In fact he is so clumsy at walking that he rarely attempts it, but, when he finds it necessary to travel along the ground, does so by using his great arms as crutches and swinging his body between them.

An interesting conjecture is as to the hammer-toes in human feet; are they not devolutions to the curved phalanges of our tree climbing days?

The foot of the young gorilla shows a decided outward bend like that of the human infant. In the adult gorilla this is largely lost and the foot everted as in the human race.

The chimpanzee shows a foot structure which, except for the absence of arches, is much like that of man. The heel is well developed and receives the whole weight of the animal in standing. In progression the weight starts with the heel, is carried first along the outer segment and then to the top of the inner as in the human foot, but the outward bend of the foot, still adjusted for tree climbing, tends to throw the weight ultimately upon the third rather

than upon the first digit, so that the third has become the predominating member. Continued terrestrial exercise of this foot would, in time, strengthen the muscles beneath it, pull up the two segments and form arches, throw the weight in progression under the first digit thus developing the great toe, and in short, produce an arched, man-like foot leading directly to the beautiful human structure.

The climax of the whole evolutionary series is the baby's foot, yet this is a climax at which we may only briefly pause for, right here, at the very dawn of life, begin these devolutionary influences which end in a whole family of foot troubles.

The little foot with the bones just beginning to ossify is shoved into a pod-like shoe. The foot grows like a weed—the shoe does not; neither at this stage does the shoe quickly wear out. The result is that an economical mother often saves on shoes at the expense of feet.

As the child becomes old enough to walk the feet are pushed into other, equally pod-like, shoes and the child instructed to toe **out**. A child's foot, as you know, normally toes **in** and to change this position is to disarrange the whole structure, weaken the centers of ossification, and pave the way for future arch defects. If fashion would dictate "pigeon-toes" it would be one of the greatest blessings she could confer upon child-kind and would prove a potent factor in the elimination of weak ankles and degenerate feet. Even adult feet are not normally toed out but directed straight forward and in neither child nor adult is a marked toeing out of the foot anything but a deformity.

Devolution of Foot

The devolution of the foot I shall take up under four heads: first, the devolution due to mal-treatment; second, to reversion; third, to disease; fourth, to accident. That the second and third causes may be attributable to the same general condition is somewhat probable, but as yet unproven. All foot ailments, whatever their direct cause, result in a common termination—reversion to a lower type—degeneracy.

Mal-treatment.—The most commonly cited cause for this foot-degeneration is the modern shoe. The effect of this shoe is the devolution of the foot and a general reaction upon the health of the whole body is beyond question. The fashionable shoe, with its high heel and pointed toe, is one of the greatest curses of our civilization, but a curse that has been so repeatedly presented to the public intelligence, and so **vainly**, that we will not here take time to go over that ground again. All thinking people **know** the disastrous results of allegiance to the fashion shoes. The wearers of these shoes are trying to accomplish gradually, by long years of suffering, what the Chinese mother **more intelligently** accomplished by the binding up of her child's feet. (If you want to fell a tree get an ax, don't use a nail file). All women, whether Chinese or American, who support such ridiculous fashions have, as a standard of foot perfection, not a human foot but a **hoof.** All will doubtless be rewarded a few million years hence with a single-toed, long-boned, high-heeled foot like that of the horse. When that happy day arrives our poor human feet will be quite comfortable in toe-walking, but intervening generations may expect ages of corns and foot troubles.

That the modern shoe is responsible for many foot ills is unquestionable, but that it is, as has often been claimed, the sole cause of hallux valgus is a theory insufficiently supported by fact. While the effect of a short shoe is obvious, it is hard to conceive how a merely tight or a pointed shoe, exerting pressure laterally upon the foot, can cause a growth in the very direction from which the force is applied. The normal result of such lateral pressure would be to force the bones upward or downward instead of outward. It is also difficult to conceive why pressure from shoes should result in a well-developed bunion on one foot and not a vestige of one on the other. The question also arises why, if bunions are caused by improper shoes, men who wear sensible shoes should be subject to them, and why barefoot races should not be exempt.

The answer to all this lies in the fact that hallux valgus may be due to various causes.

Reversion.—Chief among these causes is reversion, as evidenced by the reappearance of a once atrophied structure at the tarso-metatarsal joint, but this is a cause for which you may search your text-books in vain. The cause of hallux valgus is usually sought in the immediate vicinity of the bunion, at the metatarso-phalangeal joint, whereas it lies, in reality, higher up in the tarso-metatarsal articulation.

In this articulation there appears an extra bone structure which develops in the form of a wedge. The effect of this

wedge is to make of the great toe an opposable digit, but the muscular attachments to the first phalanx keep it from following the new direction of the metatarsal and result in producing hallux valgus.

I had noticed this extra bone development in thousands of X-rays of bunion deformed feet before I began to connect it with the bunion itself, and I do not doubt that it has been seen by other observers who have failed to recognize its presence as the **cause** of the bunion. These extra structures usually appear between the ages of 20 and 35, though I have found them present in much younger persons and have observed one case in which they were present and fairly well developed in a boy of 14. In a great majority of the bunion deformed feet which I have examined this extra structure is present, fused or separate, and developed to a greater or a less degree.

What causes the development of these supernumerary structures it is difficult to say. That a five-toed foot was not the original verterbrate form, but is a specialization of a more elaborate, possibly a seven or eight-toed foot, and that the reappearance of these extra structures is evidence of a devolution to a lower form brought about by inactivity or disease, seems highly probable. The first digit of the foot today was probably not the original digit at all, but the second, a supposition made more probable by the musculature of the digits of the foot and by the position of the extra digit as it appears, not only in some of the lower animals, but in man.

Constitutional Disease.—What part constitutional disease plays in the reappearance of these formerly atrophied structures is an open question. As disease tends toward the degeneration of an organization however, it seems highly probable that many of the peculiar bone developments met with in the human race are a direct reversion to a lower form brought about by constitutional disease.

Be that as it may, it is a conspicuous fact that in a large number of my X-rays, showing so-called gonorrheal spurs, there appear also remnants of extra bone structures either at the tarso-metatarsal joint or projecting from the tubercle of the scaphoid.

In one case—without doubt the only known case of Charcot's disease of the proximal head of the first metatarsal—a well-developed remnant of a possible first digit is seen extending backward and downward from the tubercle of the scaphoid In another case, sent to me for flat foot, there appear well defined spurs and an extra bone growing from the astragalo-calcaneal articulation posteriorly.

Accident.—Under the general heading "accident" may be listed any number of various foot deformities. It is not in the accident or cause of the deformity that we are interested, but in the subsequent attempt of Nature to adapt the new form to the old function. One of the most fundamental laws of Nature is this adjustment of form to function and she will sometimes go back millions of years in the evolutionary series to find the form best suited for her immediate needs. Here is an interesting example of this: with well-developed and painful bunions on both the first metatarsals, the patient had adopted a habit of transference of weight. The weight which falls normally on the first digit in progression had been transferred to the fifth. The result was that the fifth metatarsal had become greatly enlarged, had, in fact, taken much the appearance of the first, and there was as equal a distribution of **ab**duction of the fifth metatarsal as there was **ad**duction of the first—a direct reversion to the foot structures of the seal.

In the toe-dancer's foot we see another illustration of the adaptation of form to function. The metatarsals are longer than in the average foot, the os calcis is larger, the first digit is greatly developed and shows a battening of the distal head of the terminal phalanx such as is seen in heavy, toe-walking animals like the rhinoceros.

In another case, in which the great toe was removed, we have a pure case of adaptation of form to function. Even at this early date, five years after the amputation of the first toe and the first metatarsal, the second toe and the second metatarsal have, to a great extent, taken on the appearance of the first. The third phalanx of the second toe has already taken on the appearance of the first. The third phalanx of the second toe has already become absorbed, the proximal and distal ends of the fifth metatarsal have become much enlarged, and the toes have become hammer toes. Any given force applied to a given organization throughout a long space of time will change that organization more, even in the lifetime of one man, than we are changed from monkeys. This man's injured foot has, in five years, become

an entirely different structure from the unmutilated member.

When these devolutions are due to unavoidable accidents they are subjects for pity; when they are brought about by unwise operative interference they are subjects for condemnation. A case belonging to the latter class, one of many which I have encountered, was brought to my attention a short time ago by one of your members. The foot had been operated upon for bunion at which time the entire head of the first metatarsal had been removed. This, **of course,** did away with the bunion—cut off your nose and you'll get rid of the wart on the end of it, but you'll be in a worse fix than you were when you had the wart. The operation by removing the entire head of the first metatarsal destroyed rather than restored the function of that member and forced upon the second digit the duties of the first. The second digit, in an effort to accept the new responsibility, made a wild-fire growth and took on much the appearance of the first, the whole organization of the foot became altered, all the toes became hammer toes, and, in a short, this man, having resorted to operation for relief from bunion, finds himself in a worse conditoin than he was with the original affliction and suffers the tortures of the lost. We talk much of the evolution of man, but we really haven't gone very far. At heart we are still apes. To read of a new procedure is to follow it, and I do not doubt that there are hundreds of crippled feet in this country due to the aping of this one operation alone. The removal of the entire head of the first metatarsal in the correction of hallux valgus is an operation which I will unreservedly condemn.

Less drastic measures in operative endeavor have met with greater success and I will briefly sketch the procedure in an entirely successful operation for hallux valgus.

Iodine preparation. Incision is made over a point that gives the most liberal access to the head of the first metatarsal. The capsule is opened and freed from the distal head of the metatarsal. By so doing the head is easily brought into the wound.

The amount of bone removed depends upon the size of the bunion. Start the bone removal about the middle of the shaft of the first metatarsal; direct the chisel at such an angle that at least two-thirds of the head is removed. In some cases it may be advisable to remove even three-fourths of the articular surface. **Never** remove **all** the articular surface.

The success of this operation depends upon how thoroughly you break the capsule on the outer side. Adduct the great toe forcibly until it remains in an adducted position. Then sever the tendons of the extensor longus hallucis and the extensor brevis digitorum. Be sure that you put out of commission, at least temporarily, all the muscles of **ab**duction. Close the incision. Splint in the **ab**ducted position. In repair, as you see, we go directly back to the adducted position of the baby's foot.

There is absolutely no good reason why a foot specialist should not fit himself to take **complete** care of the feet. There is no good reason why he should not prepare himself, by a deeper study of anatomy, a more comprehensive study of surgery, to finish the work he starts. There is no good reason why all deformities of the feet should not be cared for by foot specialists, the chiropodists, just as all affections of the teeth are cared for by teeth specialists, the dentists

Yours is a young profession; see to that it gets new responsibility with every added year. Think of the possibilities in this field alone! Three million cases of infantile paralysis in this country—three million Tiny Tims bearing crutches—and not three men competent to handle them in the profession that should be most proficient—chiropody.

The study of the feet has just begun. What we know about the diseases of the feet is not an iota compared with what we do not know about them. Find out the causes for these diseases and the cure for them and you'll have a field that is practically unbounded, for nearly everybody has feet—and nearly everybody has trouble with them.

Dig in! Get your machinery together and work the lode you've staked. Get all there is in it. Don't let the other fellow legislate you out of your birthright. But don't try to work a pay streak with a hand pick.

Of course you'll meet opposition: of course you'll have to dodge bricks; but get under the old steel umbrella we all have to use and let the bricks fall where they will. And remember that all the big things in the world for the last ten thousand years have been accomplished in only one way—the way of the **sledge-hammer.**

THE DIFFERENTIAL DIAGNOSIS OF FLAT FOOT

Harry Finkelstein, M. D.

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The differential diagnosis of flat foot is evidently presumed to be so unimportant that hardly a text-book deems it worthy of more than passing notice. For example, Tubby (Orthopedics, 1 p. 694) mentions the following conditions under differential diagnosis: rheumatism, arthritis deformans, tuberculous osteitis, and the rare condition of painful lipoma of the feet. Whitman, although giving a most detailed description of flat foot, omits differential diagnosis entirely; the same is true of Lovett and Bradford's work, and still there is probably no other orthopedic condition in the writer's experience that is more often overlooked or confounded with other diseases.

In reviewing the statistics of the Hospital for Deformities and Joint Diseases for the past year, I found that out of 4,500 new patients who applied for treatment, about 1,400 suffered from various affections of the feet as follows:

Static conditions, 800 cases: Anterior metatarsalgia, weak and flat feet.

Arthritis, 400 cases: Rheumatic (so-called), gonorrheal, syphilitic (including Charcot feet), tuberculous, rheumatoid, and gouty.

Vascular affections: Obliterating endarteritis principally, pernio (chilblain), congelation (frost bite), Raynaud's disease, and erythromelalgia.

Miscellaneous conditions, together with the foregoing, about 200 cases: Morton's toe, plantar neuralgia, hammer toe, hallux valgus (bunion), and fractures—tarsal, metatarsal, and phalangeal.

From the foregoing figures, we can therefore conclude that although flat foot is seen most frequently, there are a great many other conditions which must be considered before reaching a definite diagnosis in any given case. It is for practitioners of medicine, to whom sufferers from foot conditions usually make their first appeal, that this paper is written. It has seemed best to include only the more common conditions and eliminate the rarer diseases, in order to avoid too great confusion. A number of case records have therefore been chosen, each demonstrating some of the important features on which a diagnosis is to be based.

Case I. Mrs. S. B., aged twenty-seven years, referred by Dr. J. Hyman, April, 1914. Patient married five years, had one child; had never been previously ill. Weight, four years ago, 170 pounds; at present, 200 pounds. Occupation saleswoman, which necessitated standing on feet all day. Present illness: Patient complained of pains in front of foot, corresponding to heads of metatarsal bones, plantar surface. Pain radiated to calf; relieved by rest and aggravated by standing or walking. Examination showed an obese patient, 5 feet 5 inches in height. Wore fashionable shoes with narrow pointed toes, high Cuban heels; walked with feet abducted. There was a hollow over dorsal surface of metatarsophalangeal joints, corresponding fullness on plantar surface; corns over phalangeal joints, and callous on soles of feet. Severe pain produced on plantar flexing toes. Pulsation of dorsalis pedic good. Movements of feet, normal in every direction, excepting on dorsiflexion, due to contracted tendo Achillis. Impression showed posterior arch normal. Knee reflexes, normal.

This is a typical case of anterior metatarsalgia, in which the front arch is broken down, owing to rapid increase of weight, improper shoes, and an occupation which requires long standing. The contraction of the tendo Achillis is due to continually wearing high heels. This is a very common condition among women, especially after the menopause when they are apt to take on additional weight.

Case II. P. H., aged thirty-three years, weight 180 pounds, March 24, 1911. His occupation, bartender, required standing on feet fourteen hours daily. He did very little walking. Denied venereal disease. Had never been ill previously. Present history: Complained of pains of dull character on inner side of feet, corresponding to astragalonavicular joints; also about centre of heel and in great toes, right side. These pains were especially marked on arising each morning and on attempting to walk barefooted. They diminished gradually to again appear toward evening. Patient could not walk up or down stairs or over cobblestones without experiencing severe pains. He was relieved somewhat by rest.

Examination showed general condition to be good. Nose and throat, negative. Teeth, normal. Gait, clumsy, inelastic; feet pronated, shoe worn out on inner side of soles and heels. Circulation of skin, poor; feet, clammy. Both feet held in marked valgus position; tenderness on pressure over astragalonavicular joints. Movements, especially dorsiflexion and adduction, limited. Knee reflex, normal. Spasm of peroneI. Pulsation of dorsalis pedis, good. Impressions of feet showed marked flattening of posterior arches; the X-ray showed flattening of arches. Wassermann and gonorrheal complement fixation tests, negative.

This is a typical case of spasmodic flat feet, seen in persons who must stand for prolonged periods; frequently encountered among clerks, waiters, policemen, bartenders, etc. The continual assumption of an attitude of

rest, with feet abducted, at first causes weak feet. If neglected, constant pronation induces contraction of the peronei (spasmodic type), and if condition lasts for a considerable time, it may terminate in rigid flat feet (osseous) with complete loss of motion, both active and passive.

Case III. I. R., draughtsman, aged twenty-one years. February, 1910. Height, 6 feet 2 inches; weight 140 pounds. Denied previous illness. Had grown considerably during the past few years. Had always been athletically inclined until two years ago, when he was compelled to discontinue owing to demands of business. He spent most of his time at his desk. Present illness: for the past year, had complained of pains in both feet, marked during the day, and relieved by rest. Had never had fever, chills, nor sweats. Physician diagnosed case as rheumatism and prescribed medicine, but gave no relief. Read an advertisement in the papers, which guaranteed cure in all cases of "rheumatism"; applied for treatment and was given a pair of copper plates, perfectly flat, to be placed in shoes. He was told that they generated electricity and would cure quickly. Paid fabulous sum for treatment, which after several months' trial yielded no relief.

Examination showed general condition fair. Patient tall and thin. Wore narrow pointed shoes (button). Gait, somewhat stiff; feet abducted and pronated; movements good; astragalus dislocated downward on both sides. Feet lax; arches fair, when not bearing weight, but as soon as patient rose or walked, arches dropped down perfectly flat. Tenderness on inner side of feet. Pulsation of dorsalis pedis, good. X-ray, negative; teeth and throat in good shape; blood examination, negative. Impressions showed marked flattening of arches; reflexes, normal.

This patient improved rapidly with a pair of orthopedic shoes, arch supporters, and exercises. This was a typical case of weak feet, due to sudden change from an active to a sedentary existence, in a rapidly growing young man. There was no sign of any arthritic process. A great deal of harm may be done in these cases by prescribing salicylates for prolonged periods of time.

The origin of weak and flat feet may often be traced to childhood. Faulty attitudes are very common at this period. Outward and inward (pigeon toe) rotation of the feet is frequently observed. The latter, although a protection against increasing deformity, may be assocaited with fallen arches. Turning of the ankles is also a frequent symptom of weak feet.

There are seldom any subjective symptoms in these cases, such as pain, sensitiveness, or interference with active or passive motion. This is explained by the fact that there is no constant occupation, or the burden of an overweighted body, as in adults.

The usual causes are congenital bone formation, rickets, and most frequently, general weakness following the exanthemata and other diseases of childhood, with prolonged sojourn in bed.

Case IV. M. T., aged twenty years, occupation, bookkeeper, weight, 115 pounds. Applied for treatment, April 14, 1914. Had the usual diseases of childhood; had always been delicate; was anemic; suffered from anorexia; bowels, constipated; very nervous. Had occasional attacks of insomnia. Denied venereal history. Present illness: for the past two years, had had severe pains in both feet, most marked in the toes, made worse by standing or walking. Pains had become so marked that patient spent most of the time off his feet. He consulted a physician who diagnosed condition as flat feet and prescribed orthopedic shoes, arch supporters, and exercises, the latter consisting of standing and walking on tip toes with feet adducted. He had to give up these exercises because they brought on excruciating pains for days. Pains worse in damp and cold weather; hands and feet always clammy; perspired easily.

Examination showed general condition, poor; patient pale. Examination of nasal cavity showed hypertrophied turbinates; throat, congested; slight pyorrhoea alveolaris, with several decayed teeth. Dr. J. Auerbach, on examination of the nose diagnosed empyema of antrum of Highmore. Heart sounds normal; no murmurs. Gait, careful, protective, short steps, tendency to heel walking. Feet clammy, muscles flabby, severe pains over meatarsophalangeal joints of third and fourth toes on both sides; third and fourth toes as small as fifth, and much shorter than second. Motion both active and passive, good. On attempting to stand on tip toes, had excruciating pains. Pulsation of dorsalis pedis, good. Impression of feet showed normal arches; Wassermann and gonorrheal fixation tests, negative. X-ray showed absorption of cartilage and destruction of third and fourth metatarsophalangeal joints of both feet.

This is undoubtedly a case of metastatic arthritis (so-called rheumatism), the source of infection being nose, throat, and teeth. Dr. J. Auerbach diagnosed and treated empyema of antrum of Highmore; Dr. S. Hess treated the teeth. I prescribed shoes with very low heels and high soles, thus taking the weight of his body off the infected toes. Within two months. the patient was able to resume his work and walk any reasonable distance; pain had entirely disappeared. It is now seven months since he was discharged. He has gained about twenty pounds in weight; his general health is much improved, and he is able to walk several miles without undue fatigue; pains have not recurred.

The exercises in this case were unwarranted because they merely caused additional trauma to the affected joints; nor were arch supporters of any use, as the impression showed the arches to be perfectly normal.

While on this subject, I wish to mention two forms of arthritis which are distinct clinical entities, namely, gout and rheumatoid arthritis. The former usually occurs in men between the ages of thirty and fifty years, of the well-to-do class, whose mode of living is high, and who often have a hereditary history. The onset may be very sudden (acute type) affecting the great

toe; or slow, insiduous (chronic type), requiring many years to develop characteristic lesions. Owing to the presence of tophi (deposits of biurate of soda) this is not apt to be confounded with any other condition.

The latter occurs more often in women of the poorer class between the ages of twenty and forty years. There are two distinct types, atrophic and hypertrophic. The atrophic type is a polyarticular affection, chronic, involving the smaller joints of the hands and feet and then extending to the larger joints, producing destructive changes in the joints and atrophy of the bones with marked deformity. The hypertrophic type, usually due to repeated trauma, slow and insidious in onset, and causing disability rather than physical discomfort, is generally self limited, leaving behind bony enlargements which may interfere with the movement of the joints. Since these two affections rarely affect the feet exclusively, there is seldom any difficulty in diagnosing them.

Case V. M. S., aged forty-five years, occupation, tailor, August 1911. Patient married and had three children, all healthy. Wife had one miscarriage. At the age of twenty years, patient had hard chancre; received six months' treatment by means of internal medication. Present history: about three years ago, began to complain of pain, beginning in the feet and extending toward the knee. Pains were sharp and lancinating in character, more marked at night while resting, but also present most of the day. He applied to his family physician who diagnosed the case as flat feet, prescribed shoes and plates and gave a very favorable prognosis. Patient was not relieved by this treatment.

Examination showed patient very pale; walked exceedingly erect, with shoulders squared. Feet showed usual appearances of fallen arches, but on making routine examination, I noticed that his pupils were contracted to a marked degree and did not react to light; a furhter examinaion revealed absence of knee reflexes; Romberg, slight; no ataxia. Wassermann, positive; X-rays, negative.

This was a case of locomotor ataxia associated with flat feet, not an uncommon occurrence. Unless one were in the habit of making routine examinations in all cases, this one could very easily have been overlooked, as the patient had no ataxia and only swayed a little with eyes closed. The contracted pupils drew my attention to the condition, and the absence of knee jerks and blood examination clinched the diagnosis. It is just a stray case such as this which impresses one with the necessity of making routine examinations in all cases. Before giving a favorable prognosis, all such complicating diseases should be excluded.

Case VI. C. H., aged twenty-three years, occupation, chauffeur, December, 1914. Patient had Neisser infection at the age of fourteen years; was operated on for gonorrheal spurs at the age of eighteen, years; again operated on for same condition one month later, pain having continued. After second operation, pains ceased for four years. Present history: about two months ago, on getting out of bed, experienced severe pains in heels on trying to walk barefooted; pains continued to increase in severity until patient was compelled to discontinue his work. Applied to the Hospital for Deformities and Joint Diseases, service of Dr. Henry W. Frauenthal, in December, 1914.

Examination showed skin mottled; pulsation of vessels, good. Patient walked on tiptoes; marked tenderness over heels and over malleoli. Arches, weakened; movements, limited, especially dorsiflexion and adduction. Knee reflexes, present. Cicatrices over both heels from previous operations. Still had morning drop. Urine, cloudy; gonococci, present. Wassermann, doubtful, on two occasions. Complement fixation test for Neisser, positive. X-ray showed fresh outgrowth over area previously operated upon.

This is a typical example of gonorrheal feet. The reason for the reappearance of spurs after two operations is that the gonorrheal process is still active; and before another operation is attempted, this chronic inflammation must be cleared up, otherwise, there may be another recurrence. It is highly probable that the last attack was caused by an acute exacerbation of the chronic urethritis, because the patient had been having a discharge on and off for a long time.

Gonorrheal feet are seen very frequently. This statement can very easily be corroborated by referring to the most recent literature on the subject. Dr. W. B. Bierbach, of Worcester, Mass., in an article published in the Boston Medical and Surgical Journal for February 11, 1915, states: "In reference to pelvic infection caused by gonorrhea, Price claims ninety per cent; Morris, eighty per cent; Pozzi and Frederic, seventy-five per cent; Morris and Bridgman, fifty-five per cent. Drose, Saenger, and Eberhard have shown that on examination of 1,361 gynecological patients, 12.7 per cent were infected with gonorrhea." Further on he states that in 1901, inquiry was made of 4,750 physicians in New York City, in reference to venereal disease, the results of which showed that there were 200,000 active venereal cases about the streets.

The Committee on Prophylaxis of Venereal diseases of the Washington State Medical Association reports that eighty per cent of all men in large cities have had gonorrhea once or several times; forty-five per cent infect their wives; eighty per cent of all operations upon women for diseases of

the uterus and annexa are caused by this disease. Bierhoff states that there are in New York City, today, at least 800,000 persons suffering from gonorrhea. Morrow believed that there are 250,000 married women suffering from gonorrhea, and that 1,500,000 men contract gonorrhea annually.

When we consider the fact that from two to five per cent of all gonorrheal cases are complicated by joint affections, of which the knee, ankle, and foot are most frequently involved, it is not at all surprising that gonorrheal feet are so frequently encountered in orthopedic clinics. A great many of these cases are overlooked by the general practitioner, who evidently considers the condition to be rare.

Case VII. M. L., aged thirty-three years, referred by Dr. C. Rosenheck, February 3, 1915. Born in Russia, in United States nine years; single; occupation, salesman. Previous history: Patient had scarlet fever in childhood. Had pleurisy six years ago, with which he was ill for two months. Personal history: drank two or three glasses of beer daily; smoked ten cigarettes daily. Denied venereal history. Masturbated for five years, three to four times a week. Present history: In October, 1912, experienced pain in great toe, right foot; continued work until December, 1912, then took to bed. Was examined by physicians who prescribed potassium iodide and said circulation in foot was poor. Was ill until March, then improved and continued with work. In February, 1913, experienced pains in little toe of left foot; all the toes were congested and condition lasted six weeks; felt well the entire summer. In October, 1914, began having pains in left leg; calf felt swollen, pains cramplike in nature. In November, little toe of left foot became again affected. Pains were more severe than in previous attack, and continued to date. Could not sleep at night unless feet were hanging down. There was a little ulcer of the toe which was healing. Examination showed general condition to be fair; slightly anemic; slight pyorrhoea alveolaris, many fillings and crowns. Heart and lungs, negative. Pulse, regular, good quality, increased tension 135. Abdomen, negative; varicocele left side. Veins over right, weak; posterior tibial, left weak, right, good; popliteal, left good, right good. Left foot, cold and clammy; ulcer on little toe nearly healed. Right foot, cool but dry. Knee jerks, active. Wassermann taken twice, both negative. X-ray examination showed calcification of left dorsalis pedis artery. Pulsation: dorsalis pedis, left, absent, thighs, dilated. Left foot congested, circulation poor, valgus position. Right foot, normal color; arches, good. Movements of both feet, good.

This type of case, seen frequently in orthopedic clinics, is known as obliterating endarteritis. It occurs usually in Russian Jews. The etiological factors are not definitely known, but most cases give a history of either rye poisoning, syphilis, or excesses in tobacco or alcohol. There is usually a previous history of chilblains; the prognosis is poor, as most cases go on to gangrene.

Unless the pulsations of the dorsalis pedis, posterior tibial, and popliteal vessels are examined in all cases, one is very apt to overlook this condition in the early stage. In a well marked case the diagnosis is almost self evident.

In every case of paronychia, it is advisable to feel for the pulsations and also note the temperature of the foot, because if it occurs in obliterating endarteritis, gangrene almost invariably follows operative intervention. This has resulted in several medicolegal suits. The X-ray is of considerable value in these cases; should there occur a calcification of the blood vessels the condition is easily demonstrated.

Case VIII. I. M., aged twenty-three years, unemployed, December 18, 1914. Family history, negative. Patient had scarlet fever at the age of twelve years. No venereal history. Weight, 130 pounds. Present history: at the age of seventeen years, began to have slight pains in right foot and ankle, gradually increasing in severity, and worse at night. Suddenly wakes up on several occasions with severe pain; no cough, night sweats, or fevers. Unable to walk about. Consulted physician who advised operation. Was seen later by Dr. R. H. Sayre, who treated him at the orthopedic clinic of Bellevue for six weeks, and then referred him to Hospital for Deformities and Joint Diseases, in February, 1909. Two abscesses were opened, in front and behind inner malleolus. In the latter part of 1909 Dr. Sayre prescribed a brace, which he wore for two years, and pain had completely disappeared. Patient's general condition improved, and he continued with his work. He walked for two years without support. In 1913, tripped while walking down stairs and injured same foot. Although a Detroit physician who examined him said there was no damage done to the bones, the X-ray picture taken at a somewhat later date showed a fracture of the posterior portion of the astragalus. Patient returned to New York and again applied for treatment at the Hospital for Deformities and Joint Diseases (service of Dr. Frauenthal).

Examination disclosed that the patient walked with a distinct limp, favoring right foot. Had two cicatrices over areas previously operated on. There was marked atrophy of the leg and a white fusiform swelling involving the ankle and foot. Muscular spasm prevented any movement whatever. Tenderness over all of tarsal bones; most marked over astragalus.

Measurements: right calf, 10¼ inches; left calf, 13½ inches; right ankle, 11 inches; left ankle, 10 inches; right foot, 9½ inches; left foot, 9 inches. Pulsation of dorsalis pedis, good. Knee reflexes present. Patient lost about 10 pounds in weight. Wassermann, gonorrheal complement fixation test, negative. X-rays (Fig. 5) showed a marked rarefaction of all the tarsal bones, and a contrast between the normal and tuberculous foot.

This was a typical case of tuberculous osteitis involving the tarsal bones of the right foot. The diagnostic feature are: gradual onset, pain, especially at night (night cries), atrophy of limb, muscular spasm, cold abscess, and the X-ray findings (marked rarefaction of of bones).

Case IX. A. B., aged twenty-seven years, occupation, agent, July 28, 1913. Previous history: gonorrhea three and one half years ago; otherwise had never been ill. Denied lues. Other members of family in good

health. Present history: for the past three years, had pains in right foot, affecting the whole tarsal region, worse at night; did not interfere seriously with his work. Area involved swollen and tender; symptoms not aggravated by changes in atmosphere.

Examination showed right tarsal region swollen, tender; arch high (pes cavus). No interference with active or passive motion. No limp on walking. No atrophy of limb compared with opposite side. Pulsation, good. Knee reflexes, normal. X-ray examination showed periostitis, otherwise negative. Blood examination (board of health) gonorrheal complement fixation test, negative; Wassermann, positive. Since patient denied lues, another examination of blood was made by Dr. Kaplan (Neurological Hospital), which confirmed the findings. General condition, good. A careful examination of the rest of the body failed to show any lesions in skin, nose, throat, etc.

Under salvarsan and mercury, the condition improved within six months. The Wassermann was then negative and has remained so. This is therefore most likely a case of syphilitic arthritis. In its various manifestations bone syphilis may resemble other forms of arthritis, rickets, tuberculosis, osteomyelitis, sarcoma, osteitis deformans, etc. Unless we obtain a history of hereditary taint, venereal lesion, or secondary manifestations, our only other aids are the Wassermann examination and X-rays.

It has been customary at the Hospital for Deformities and Joint Diseases to subject all doubtful cases to Wasserman tests. The great number of positive returns prove that either the Wassermann test is unreliable as a diagnostic aid, or that there is much more bone syphilis than we suspected. And while on this subject mention should be made of Charcot's disease of the foot, a very rare condition; patients usually give a history of lues and there is often an associated tabes. It is characterized by a rapid absorption and destruction of the cartilage and bone, leaving in time an enlarged, flail-like joint, with few subjective symptoms.

Summary

This paper is recognized as being far from complete, but it is intended to be suggestive rather of some of the more frequent conditions that may offer difficulties in differentiation.

The former practice of limiting all foot conditions to either flat feet or rheumatism has fortunately died out. It is not sufficient to give a name to a group of symptoms and be satisfied that the diagnosis is made; nor is it sufficient to consider the foot apart from the rest of the body; foot trouble is very often merely a single expression of a more distant morbid process, detection of which may be of far greater importance than the local condition. A careful routine examination of the body is therefore an absolute essential in all doubtful cases.

Certainty of diagnosis has made a decided advance in recent years with the advent of the X-ray and the newer improved methods of microscopical, chemical, and bacteriological examination. Constantly accumulating experimental and clinical research work has given us a better insight into the etiological factors in diseased conditions. With this wonderful expansion of the means of unraveling the mysteries of disease, errors in diagnosis should be few and far between.

In conclusion, I wish to acknowledge my indebtedness to Dr. Henry W. Frauenthal for his kindness in permitting me the use of clinical material and case records from his service, and to thank Dr. Hirsh and Miss MacMillan for preparing the X-ray prints. —N. Y. Medical Journal.

FOR LOCAL ANESTHESIA

If one applies liquid crystallizable phenol (full strength) with a brush or a swab to the surface of the skin or of a mucous membrane, a whitish spot results, followed shortly by local anesthesia. This method can be used for many operations; it will cure light infections, as from ingrowing toe nails, furuncles, acne, ulcerations, or infections of the hysterovaginal folds. Crystallizable phenol, since that liquefied by the addition of alcohol or glycerine does not produce such an intense blanching and is less efficient.

If after the white spot appears we touch it with undiluted hydrogen peroxide, it will not disappear if the tissues are normal; if the submucous or subepidermic tissues have suffered alterations, the white spot will darken until it becomes black, and the nearer to the surface the affected tissues lie the darker it will become. This black spot is in reality a scar which can be opened slowly, since it is anesthetized, and the incision will surely open a way for the pus, debris, etc. It is a splendid method of diagnosis, prognosis and treatment.

Prof. Edward Adams has been released from Army Service and will resume his chair as Professor of Surgery in The First Institute of Podiatry in the 1919-20 course, beginning October 6th next.

If a woman buys a collar for her husband, it's pretty sure to be size 13.

RADIOGRAPHY AND PODIATRY

John Long, M.Cp.
Brooklyn, N. Y.

To practise podiatry in these times without an X-ray examination—when such is indicated—is like looking for a Zeppelin raid with a candle. The days of guesswork and slipshod methods in reaching a diagnosis are past, and until we have exhausted every available method known, our duty to a patient has not been fulfilled. When a patient comes to us, he does so with confidence, and we betray a sacred trust if we do not try our utmost to get at the root of the trouble.

Examples of the lack of care come to our attention daily, showing, sad, as it may be, how prevalent is the habit of making a snap diagnosis. Without the X-ray a fracture may be easily diagnosed as a sprain, in which case time, and often the patient, is lost by the error.

A great field for the use of the X-ray is in localization of foreign bodies, the diagnosis of fractures, and diseases of the bone, as osteo-myelitis, etc.

When treating a sinus, how many podiatrists have the foresight to look further into the matter than merely getting the wound healed up? A sinus being a tract leading from a cavity to either another cavity or the surface—which may or may not contain pus—the question arises as to how the pus came into that cavity. Frequently the bone is involved. An X-ray examination will plainly show an osteo-myelitis, on osteitis or periostitis to be the cause. Furthermore, the X-ray may show a condition of the bone which points to the existence of constitutional trouble, such as syphilis, gonorrhea or tuberculosis. It also may frequently reveal the beginning or existence of arterio-sclerosis.

In orthopedic cases the use of the X-ray is multiple. Pain in the heel may be an exostosis on the os calcis; a painful joint may prove an osteo-arthritis.

To illustrate the importance of the foregoing I wish to mention a few instances which have come to my notice:

Mrs. D. L., (Dr. N. A. G.'s patient) had been treated for three months by several podiatrists for a pain in her left foot, near the little toe. Having been referred to me for an X-ray examination, the negative disclosed a fracture of the proximal phalanx of the fifth toe.

Mrs. A. K., (Dr. C. S.'s patient) complained of constant pain in plantar surface. Although history was negative and patient did not remember any injury, the examination clearly showed half a needle firmly imbedded under the upper end of the shafts of the third and fourth metatarsal. When told of the finding, she suddenly remembered that some three months ago she had felt a sharp pain in her foot while crossing the floor barefooted, but at the time did not notice anything wrong.

Mr. R. had an open wound just back of the heads of the second and third metatarsal. About a year previous to his coming under my notice the inner longitudinal half of the proximal phalanx of the great toe had been surgically removed. Evidently there was a sinus between the latter part and the open wound which refused to heal, hospital and other treatment notwithstanding. On making an X-ray examination I discovered necrotic bone tissue adjacent to the part previously operated upon. The case was further surgically treated according to the diagnosis made possible by the X-ray and the patient recovered within a short time.

In conclusion I wish to say that it is not necessary to have radiographs made promiscuously, but we should not hesitate to make use of them when the slightest doubt exists in our mind.

A DESTROYER OF PAIN

Practitioners of chiropody will be interested in Parathesin, a product possessing all the virtues of cocain in temporarily producing nerve insensibility, without any of the disadvantages of the latter. Through the courtesy of Herman A. Metz, president of the Metz Laboratories, Inc., the manufacturers of this product have donated a quantity of this preparation to the Foot Clinics of New York (Mr. Metz is a member of the advisory board) and the remarkable properties which this agent possesses for relieving pain wherever there are abrasions is being nightly demonstrated. We hope in the next issue of the Items to present to our readers a report of numerous cases treated with Parathesin by the clinic staff.

THE EVOLUTION OF PODIATRY

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Brooklyn, N. Y.

In perusing the recent history of medical achievement, one is perplexed at the great progress made. So confusing is the increase of knowledge in all branches of medical science that it is practically impossible to select one field whose advances have been most pronounced. Yet a brief survey of the growths of medical specialties, discloses a phenomenon of great utility to the race: I refer to the evolution of a distinct branch of medicine now known as Podiatry (or Chiropody) from that despised and obscure trade of the "corn cutter." So quickly has the transition occurred and so vast in its scope is the growth of podiatry that it is difficult to know where to start the narrative. This difficulty is intensified as we approach the history of this development from the standpoint of either its literature, its proponents, its legislation, or its research work.

Before, however, relating its history, it is perhaps desirable to refer to such thoughts as naturally arise in our minds when we think of feet. To medical practitioners, the query suggests itself of why feet have been neglected as a study. We think of the numerous articles appearing in recent years both in medical and lay literature on the subject of foot lesions; of the increasing widespread agitation regarding flat feet, for example; of the problems that confronted the medical authorities of the army in connection with feet and shoes. It occurs to us also that we have been seeing an increasing number of advertisements in the press extolling the virtues of various types of shoes and arch supports. We wonder at the fact that early in the history of recruiting in connection with the world war, the authorities conceded that a large percentage of the rejections were on account of bad feet.

In amplifying these thoughts, we ask why there has been the undeniable disregard by medicine in the past of foot lesions—why it has divorced the foot from its observation and thus retarded the acquisition of knowledge of a part of the body with which the efficiency of humanity is ultimately concerned. It is apparent that in minimizing the importance of foot pathology, medicine, has overlooked the value of a part that the greatest military tacticians from time immemorial have recognized as of essential importance in military life. The fault may have been with the schools which never taught minor foot ills. We know that post-graduate medical schools have never taught practitioners along lines of foot care. Of no less importance are the feet in civil life. It is already becoming axiomatic to medical practitioners that "rheumatism," "nervousness," "growing pains," and various other appellations are often synonyms for a variety of mechanical disorders originating in the feet. The practice has been to regard most foot or leg pains as "rheumatic" and to medicate internally by salicylates or other drugs. Others, again, overlooking other causes, attributed most foot ills to "flat feet" and the pendulum is swinging over to a promiscuous application of arch supports and well advertised shoes as cure-alls. By depending upon arches or brand shoes, which are in most cases applied by unscientifically trained shoe clerks, practitioners have ignored a comprehensive etiology for conditions often originating from other sources than feet and which were reflecting themselves locally; and in this dependence on well-advertised shoes fitted by shoe clerks, sometimes called "doctors," the important fact has been lost sight of that the therapeutics of a shoe does not lie in its name but in a properly adjusted shoe for the particular condition, under the guidance of an orthopedist or podiatrist. Others, again, have entertained a notion that general disturbances manifested by pain below the abdomen will right themselves and therefore warrant no special attention. Recent research, however, enhanced by the studies of orthopedists and of podiatrists are rapidly changing this unfortunate state of affairs. Lack of knowledge in foot pathology has resulted in the existence of fallacious notions as to feet. A glaring example of this obtains in the very common but false notion that a low-arch means a useless or flat foot and that a highly-arched foot is ideal. Such a view, by way of illustration, herein, is in the

light of newer knowledge rapidly becoming obsolete.

As indicating the growth of medical interest in foot lesions, we would refer to the many articles current. The number of such writings has probably increased ten-fold in the last seven years and is naturally concomitant with the alarming increase of foot ailments in our large industrial centers. This interest is, prima facie, indicated in the more concentrated study given it by eminent orthopedists in connection with the brilliant orthopedic advances of the last two decades. In military life, this interest has been very intense. The feet became a problem not only in the light of the numerous rejections from service occasioned, but also from the loss of man power which occurred as the result of many soldiers being incapacitated from service on account of poor feet. The United States Government through an official board, the Munson Shoe Board, devoted four years to a close study of feet and shoes, which resulted in very valuable information and in the production of the Munson-last shoe.

With further reference to the growing sales of "orthopedic" or well-advertised shoes and arch supports, we again see evidences of importance in this connection. Incidentally we observe a frantic, foot-sore, and somewhat crippled nation turning to an unscientific quarter, the shoe store, for relief that would be had from practitioners specially qualified. These are facts amply confirmed by clinical histories of patients who eventually arrive at some dispensary for treatment after years of experimentation with various makes of shoes and supports recommended by laymen.

A survey then of the facts mentioned leads to one conclusion, namely, that as all sciences, and particularly medicine, are divided into specialties, the demand for those trained in foot ailments has been imperative. However, as medicine disregarded the responsibility, it eventually fell to the podiatrist to assume the task. That the podiatrist met and rose beyond the responsibility is a matter of historical fact. And this brings us then to the story of the evolution of podiatry as a profession.

The term "chiropody" in its earlier sense embraced that form of surgery dealing with the treatment of ordinary excrescences by the knife. The newer term podiatry, an evolutionary outgrowth of the older one and which is superseding "chiropody," means "the treatment of the feet in health and in disease."

As no one ever undertook to specialize in the treatment of such disorders, this work originally took on a trade atmosphere and its primitive history follows the route of early medicine or dentistry, that is, treatment given empirically in cosmetic establishments. As in early medicine and dentistry, chiropody was done by those unscientifically fitted for the work and thus limited in ability. The layman, however, was unconscious of the limits of chiropody. He was very conscious of the fact that his doctor minimized the pain in the lower extremities and even refused to examine or treat him. The layman, therefore turned to the chiropodist for assistance.

As a trade, the practice of the chiropodist was often transmitted from generation to generation. Many of these individuals existed and plied their trade in barber shops and in boot-black stands, and others operated by moving from town to town much as the traveling doctor of old or the itinerant dentist. The itinerant chiropodist disappeared with the advent of the scientific podiatrist and the regulation by law of the treatment of foot ailments as a branch of medicine.

Concerning the history of podiatry in a state where its growth was peculiarly interesting, we shall consider New York State. The conceptions of chiropodists and their limitations, already narrated, continued in this state, until these individuals themselves, self-educated, realized that their occupation demanded more serious attention. They sensed the vast importance of their work and their lack of training for the variety of pathological conditions that they met in their practice. Inspired by the necessity of action, in 1895, several pioneers conceived the idea of applying to the State Legislature for a law regulating chiropody, and in the same year this law was placed on the statute books as Chapter 864 of the Laws of 1895. This law also created the Pedic Society as the licensing organization.

Since the establishment of this first law, the history of the profession has been one of vigorous advance accompanied by an increasing respect and admiration for the services and scientific knowledge of its members.

By a section of the former law of 1898, chiropody was legally defined for this State as follows:

Chiropody is understood to be the surgical treatment of abnormal nails, all superficial

excrescences occurring on the hands and feet such as corns, warts, or callosities, and the treatment of bunions; but it shall not confer the right to operate upon the hands or feet for congenital or acquired deformities, or for conditions requiring the use of anesthetics other than local, or incisions involving structures below the level of the true skin.

The foregoing was a very unsatisfactory definition in that it made almost every act of the chiropodist illegal. The conditions that chiropodists were called on to treat were far ahead of the law and it was almost impossible to practise without overstepping the technical limitations of chiropody as there defined.

In curious contrast and as recording one of the most brilliant advances of podiatry in this State, we shall now turn our attention to the new definition of podiatry, passed unanimously by both Houses of this State and approved by the Governor very recently. It reads as follows:

Podiatry shall be held to be the diagnosis of foot ailments and the practice of minor surgery upon the foot limited to those structures of the foot superficial to the inner layer of the fascia of the foot; the palliative and mechanical treatment of deformities and functional disturbances of the feet; but it shall not confer the right to treat communicable or constitutional diseases of the bones, ligaments, muscles, or tendons of the foot, or any other part of the body, or to perform any operation on the bones, ligaments, muscles, or tendons of the foot involving the use of any cutting instrument or the right to use any anesthetics other than local.

The laws of this State were consolidated by legislative enactment in 1909, and the law governing the practice of chiropody was incorporated as Chap. 13 of the Public Health Law. This Public Health Law which governs the practice of medicine, dentistry, etc., therefore classed podiatry with those other great agencies for the improvement of the public health.

By Chap. 199, Laws of 1912, the licensing power for podiatrists was vested in the Board of Regents who demand the customary requirements as in other professions relating to fee, age, character, preliminary education and including graduation from an institution maintaining a standard satisfactory to the regents. The Board of Medical Examiners was from then on required to prepare the examinations for applicants for licenses which are issued only after passing the examination by this Board and previously fulfilling the preliminary academic requirements. These academic requirements for podiatry will in September, 1919, be three years of high school work, or the equivalent; and in September, 1921, four years of high school work or the equivalent.

The institution in this State which is training the podiatrist, is under the jurisdiction of the State Education authorities and was established in 1913. On Sept. 27, 1917, the regents granted a provisional charter which changed its name to "The First Institute of Podiatry," and abolishing the older title of "The School of Chiropody of New York."

Dr. M. J. Lewi, its president, prior to his assuming charge of the school had acted as secretary of the N. Y. State Board of Medical Examiners for twenty-two years. His connection with podiatry started in a curious manner. A committee of the Pedic Society of the State of New York was referred to Dr. Lewi for advice as to methods of advancing the professional standing of the podiatrist by improving the then chiropody law. Dr. Lewi immediately fell in with the earnestness and the progressive intent of this committee and granted them extremely valuable aid by drafting the bill which was enacted in the spring of 1912 and became effective that year. The State Education Department then delegated Dr. Lewi in his official capacity with the medical board to outline a standard for chiropody schools. This standard was so high that it was necessary to secure as the leader of such an institution not only a medical practitioner but a medical educator of executive ability. In desperation, this committee finally appealed to Dr. Lewi to carry out the standard he had himself set by becoming the president of the school. Though at first averse to this offer, he finally left his position with the State Board and became president of the First Institute of Podiatry on January 1, 1913.

A survey of the curriculum of this institution is complimentary not only to the educational attainments of the podiatrist but also to the high standards set by the educational authorities of this State as to professions. The subjects taught at present embrace anatomy, physiology, histology, mechanical physiology, chemistry, bacteriology, microscopy, surgery, pathology, materia medica and therapeutics, orthopedics, practical podiatry, pharmacy, footgear, dermatology, principles of medicine, massage, and ethics. The scientific consideration of the foot, as being carried on in the First Institute of Podiatry, should be welcomed by the

orthopedic surgeon, for its foot work, by reason of the agitation inaugurated to interest the public, is multiplying the number of their patients for foot ailments, many of whom find their way to these specialists through the suggestions and direct recommendations of podiatrists.

Referring to the future of this institution, in his opening remarks to the first class of students, Dr. Lewi said:

It seems like a paradox that I, who have always been the exponent of higher standards in medical practice, should be officiating as the executive of a non-medical institution which is striving to educate others than licensed practitioners of medicine to practise a branch of medicine. But the contradiction is not because of my activities in this novel field. The difficulty has been that no opportunity has been vouchsafed medical students and medical practitioners to acquire the knowledge essential to practise the specialty of minor foot lesions and in consequence the public has had to accept the unscientific services available from chiropodists or to go on suffering. I promise to help in creating a center where these chiropody laymen may be educated to recognize cause and effect. This school shall be scientific—so scientific that even medical doctors, wishing to become foot specialists, may come to these halls and gain the requisite knowledge for their purposes. The standard will be raised from time to time until the medical education imparted to students will be equivalent to that received by students at regular medical schools. I am still of the opinion that no branch of medicine should be practised by those unlicensed as medical doctors, but the situation as to foot specialists is such that the existing gap must be closed so that time shall make the desirable changes which medical schools have thus far failed even to attempt, much less to accomplish.

The following sets of questions were a part of the final examinations held at the Institute, May, 1918, and will serve to convey an idea of the educational scope of its teachings:

Bacteriology and Microscopy

1. Define gram-negative bacteria, agglutination, fine adjustment, diplococcus, hanging-drop, capsule.
2. Name the microorganisms which have been found to be the etiologic factors in the following infections: abscess, lockjaw, tuberculosis of the skin, hard chancre, typhoid, periostitis, gas gangrene, malarial fever, hydrophobia, pneumonia, ground itch.
3. Describe the tubercle bacillus and one method of staining it.
4. Discuss in detail the factors concerned in acquired immunity.
5. Describe in detail the preparation of hyaline cartilage shown you under the microscope.
7. Describe the difference between the two slides of (a) connective tissue, (b) spindle cell sarcoma.
8. Identify slides Nos. 1, 2, and 3.

Pathology

1. Differentiate exudate and transudate, giving example of each.
2. Define atrophy. Give the varieties of atrophy.
3. Describe the gross appearance of an ulcer in its various stages.
4. Describe the process of primary healing; of secondary healing.
5. Differentiate degeneration and infiltration. Mention some of the most common forms of each.
6. What purposes does the exuded lymph serve in the process of inflammation?
7. Of what do pus cells consist? What is leucocytosis; phagocytosis?
8. Describe the phenomena of inflammation.
9. What is gangrene; slough; necrosis?
10. Define immunity. What is the action of toxins; what is the fate of toxins?
11. How is the dead part separated from the living in moist gangrene and in dry gangrene?
12. Describe a tubercle.

Materia Medica and Therapeutics

1. Name 5 important local anesthetics in podiatry, state how each is used, and give their mode of action (not mode of administration).
2. State physiologic action, official preparations, therapeutic uses, mode of application and poisonous effects (if any) of iodine, phenol, alcohol, iodoform.
3. Name the different baths used in podiatry, the temperature at which to be taken, effects desired in ordering them, and precautions to be observed. Describe the alternate foot bath
4. Name six important official antiseptics used in podiatry. State in what conditions the use of each is more particularly indicated and in what manner each should be employed.
5. Define alkaloids, deodorants, purgatives, antiphlogistics, counter-irritants, astringents, antiseptics.
6. Name five caustics and escharotics; state the four ways in which they may act and tell in what manner and in what conditions they may be applied.
7. Name the different drugs and other methods which are employed in the treatment of burns and state how they should be applied.
8. When using escharotics and caustics, what precautions should be observed? What is the most important opium preparation used in podiatry and what is its formula?
9. Describe the use of Friar's balsam; Crede's ointment; liquor Borowi; Goulard's cerate; Thiersch's solution.
10. What drugs are commonly employed in the treatment of simple heloma ta and how should they be used?
11. Name the drugs incompatible with the use of silver nitrate; iodoform; iron.
12. How should lead nitrate be used in the treatment of onychia maligna?

Podiatry Orthopedics

1. How does a congenital flat foot differ from an acquired flat foot?
2. Describe in detail treatment of a rigid acquired flat foot.
3. Is the restoration of normal contours in the treatment of flat foot of prime importance, or should greater stress be laid on normal functionating? Explain.
4. Does the treatment of cases of weak foot in children differ from the treatment of weak foot in adults? If so, describe wherein.
5. How does a spastic weak foot differ in actions from a flaccid weak foot?
6. Describe condition known as "strained foot." Give treatment.
7. Is Morton's toe a congenital or an acquired condition? What is the most frequent cause of Morton's toe?
8. Give the treatment of Morton's toe. Describe proper shoe, etc.
9. What is the literal meaning of the term metatarsalgia?
10. What conditions have we in mind when we speak of anterior metatarsalgia? How should this condition be treated?
11. Describe a method of making a plaster of Paris cast of the foot.
12. What exercises would you advise for weak foot; what in order to stretch a shortened gastrocnemius?

Practical Podiatry

1. Define heloma; bromidrosis; onychia.
2. Describe in detail the treatment of infected heloma.

3. Mention and describe a bandage used for covering the great toe.
4. Describe in detail the preparation and application of shields. Mention four materials used in shielding.
5. Give etiology and pathology of onychocryptosis. Mention the various treatments for this condition.
6. Give differential diagnosis of bursitis and chimation mild. Outline course of treatment for latter condition.
7. Name five antiseptics used in podiatry and mention the strength in which each is used as such.
8. Mention four local anesthetics and describe the administration of one of them for operation upon heloma durum.
9. Mention various treatments for verruca and describe in detail any one of them.
10. When are wet dressings indicated? Describe the application of such a dressing.
11. Wherein does bromidrosis differ from hyperidrosis? Describe the treatment of the latter?
12. Describe a bandage that will cover a varicose ulcer on the lower third of the leg.

Principles of Medicine

1. Describe an acute attack of gout of the great toe.
2. State etiology and treatment of tetanus.
3. Give prophylaxis in arthritis deformans.
4. Define and state chief diagnostic points in diabetes mellitus.
5. What would lead you to suspect scarlet fever in a convalescing patient? What prophylactic measures should be employed?
6. Define neurasthenia; Charcot's claudication.
7. Give specific treatment of malaria; diphtheria, syphilis, hydrophobia.

The fact that ony six graduates out of the several hundred who have taken the examination by the State Board of Medical Examiners in this State have ever been rejected is convincing proof that their education has been such as to fit them for the work.

The practical clinical work of the students at the institute is had at clinics conducted at the school. Several years ago permission from the State Board of Charities for a license to conduct a foot dispensary was obtained, and this is now carried on conjointly with the teaching. A resume of the activities of the clinics follows. These various departments are in active operation each night except Saturdays, Sundays and holidays.

1. A general clinic wherein are treated general excrescences commonly arising on the feet.
2. An orthopedic clinic where are treated all foot cases involving bone and muscle deviations from normal; also the preparation of plaster of Paris dressings, strappings, casts, foot braces, etc.
3. A special clinic where unusual conditions are treated, including serious cases of onychocryptosis, verrucae, infections, etc.
4. Orthopedic massage department for the massage of the lower extremities.
5. Special massage department where massage is done with a view to correcting muscle contractions, posture defects, etc.
6. Thermotherapy department.
7. An X-ray department.

In each of the above departments, a precise system of record taking is in operation. A complete history of every case is on file embracing all features of the diagnosis and treatment, thus making these files a valuable repository of data for future study and scientific education. The average number of cases treated annually since 1913 is 10,000. Some very valuable work is also being done in research relating to such topics as focal infection, gait, posture, etc.

The foregoing recital of the history of podiatry in this State is interesting as, except for New Jersey, it was the only State for many years where podiatry was recognized. At the present time, there are twenty-three States regulating podiatry as follows: New York, New Jersey, California, Washington, Colorado, Nebraska, Minnesota, Wisconsin, Michigan, Illinois, Louisiana, Ohio, Virginia, West Virginia, Pennsylvania, North Carolina, Connecticut, Massachusetts, New Hampshire, Vermont, Maryland, Rhode Island, and the District of Columbia. All of the other States will probably legislate similarly along podiatry lines within the next three years.

Since the establishment in this State of The First Institute of Podiatry, the following institutions have come into existence, whose officials claim equal distinction in their efforts to train podiatrists: The California College of Chiropody at San Francisco; the Illinois College of Chiropody in Chicago; the Ohio College of Chiropody in Cleveland; the Temple University of Philadelphia, which has a department of chiropody and is educating podiatrists in conjunction with its medical course. The latest addition to podiatry teaching institutions is the University of Massachusetts in East Cambridge, Mass.

Podiatry teaching schools have made rapid progress. They are now crowding into nine months, averaging nine hours of daily application, the equivalent of two years of medical training. In another year, the course will probably be of two years duration, encompassing fully three years of medicine, and in 1921, there will possibly be a three years course, tantamount to a full medical school course, minus major surgery in its special applications. Ultimately, The First Institute of Podiatry will be merged with some one of the existing universities, whereupon the special subjects now there taught will be incorporated in the medical curriculum, thus terminating the occasion for its existence, or it will ask and doubtless secure a charter of its own to educate medical students and to grad-

uate them, plus the privilege of instruction in post-graduate work. It is up to the medical schools to determine the issue. If they were to commence next year to establish limited cours. for educating podiatrists and, additionally, post-graduate schools were to establish departments for specializing on foot care and foot treatment, most of the podiatry schools would surrender their charters and thus, after all of these centuries, the care of this class of cases would fall into medical hands, scientifically equipped properly to care for them and to provide for the public foot wants.

There were those who jeered at the pioneers in their attempt to elevate chiropody from a trade into a profession. They ridiculed the men who were at the helm in this undertaking and who were charged with being commercialists. The scoffers have remained to pray! There was never a more altruistic proposition launched by the ethical in any profession. Every cent of money realized from tuition fees, and that was the only source of revenue, was expended with a view to bettering the New York institution. For years all of the faculty served without pay—in fact the majority of them received pay for only one brief term, the full-fledged professors commanding the high (?) salary of three dollars per hour. The war took seven men from the faculty to the front and with them went scores of students. The Institute did not close, but under the same management, with its lessened forces, kept on with its education efforts and the attenuated faculty continued functionating without thought of monied recompense.

As to the original Pedic Society of this State, the excellent results from its activities encouraged the organization of similar bodies throughout the country. There are now thirty-seven States having such societies, and it is safe to predict that within a few years, such an organization will exist in every State of the Union. Co-operating with these State bodies is the National Association of Chiropodists, which has done valuable work in advancing curricula, advocating the passage of the army service bill, and obtaining a wider scope of endeavor for practitioners. In some States, at present, the law permits the podiatrist to perform operations of a minor nature, while in others, practice is limited to external structures. It is, however, safe to predict that very shortly, every State in the Union will have enacted legislatoin regulating podiatry, and its scope. The tendency is now to grant a wider range of activity to the podiatrist but there is no desire on the part of the podiatrist to be equipped with the authority of the orthopedist.

An interesting phase of the history of the profession obtains in the fight that was made to obtain official recognition in the army for podiatrists. In 1917, the activities of the National Association herein culminated in the appearance of Dr. Lewi, of New York, Dr. Siemon of Ohio, and Dr. Harlan of Maryland, together with the special army service committee of the association which was headed by Drs. Burnett and Stanaback, before the Surgeon General of the United States Army and also before the Committee on Military Affairs of the House of Representatives, and here their arguments, though not achieving the desired object, resulted in a concession from the Medical Corps Committee (Mayo, Brackett, and Silver) that there was urgent need of the service even though they did not recommend a commission to these practitioners.

As to the literature on foot lesions, very little of scientific value can be discovered prior to the 18th century. Then, about 1800, a Dr. Lion gives an account in one of his books of his efforts to elevate chiropody as a profession. His writings have an historical significance in that they reveal the curious fact that it was considered undignified to treat feet. This notion, whatever its source, seems to have persisted and may be responsible for the neglect accorded this branch of medicine. Dr. Lion applied in 1796 to the College of Physicians and Surgeons for a diploma with the intention of treating feet only. In spite of receiving high honors in his studies, his license was refused because he was engaged in the degrading "business of corn cutting." This was followed by a similar rejection from another institution because he was engaged in practising on feet.

As to other works, the earliest treaties on the nail appeared in 1646. The earliest American treatise on chiropody appeared in 1862 entitled "Surgical and Practical Observations on Diseases of the Human Foot." The earliest manifestation, however, along the lines of progress in the development of scientific literature was the production here

of the "Text Book of Chiropody" containing 1183 pages and which represented the first scientific attempt to collect important and valuable foot data into one book. This volume was issued about 1914. Subsequent to this the appearance of newer works was so rapid and comprehensive, that compared with the newer literature, this volume is becoming a curiosity of early literary endeavor. However it was hungrily devoured all over the world and finally through the efforts of two important organs, The Pedic Items and The Podiatrist, which encouraged the publication of foot articles by physicians and podiatrists, a wealth of new material was added, tried, and developed.

Already, there have been issued as part of a contemplated system of podiatry text books to appear in sequence "Surgery With Special Reference to Podiatry," by Drs. Stern and Adams; "The Text Book of Practical Podiatry," by Drs. Joseph, Burnett, and Gross. Dr. Lewi is the editor of all three of these publications.

It seems appropriate to close this narrative with a quotation that reveals the depth of purpose and earnestness, the scientific aspiration, and the eloquent idealism that has actuated and resulted in the evolution of podiatry:

> The beauties of the human foot, coupled with its strength to perform the functions for which it was created, caused the ancient Greeks to glorify it in song and in art. Medically and surgically, it has always been a negligible factor in the world of science, notwithstanding the burdens which it is made to bear and in spite of the interference with locomotion and with general health which its non-care has occasioned for all centuries since creation. Our propaganda recognizes the importance of this part of the anatomy and is causing the race to realize the need for footcare in health and for scientific foot treatment in disease.—Medical Record.

Through a mistake of the printer, the advertisement of the Prophylactic Foot Remedy Company, in the September issue was the same as appeared in the August issue. It should have been the one in this issue.

Three States have enacted chiropody laws this year, viz.: North Carolina, New Hampshire and Nebraska.

FOR SALE

Good chiropodist can have office in a high-class ladies' hairdressing establishment. Call at Julius, 170 West 72nd Street, N. Y. City.

Chiropody News

CHIROPODISTS AT CLIFF HAVEN

The seventy-third annual meeting of the Albany division of the Pedic Society was held at Cliff Haven, Plattsburg, N. Y., September 1, permission being given by the Very Rev. John J. Donlan, Ph.D., president of the Summer School, for the holding of the meeting on the grounds. Dr. Donlan is a very personal friend of the President, Dr. John H. Callahan. Dinner was served at the Champlain Club, after which the meeting was called to order by the president. The secretary being absent, Dr. N. Woodruff Potter was appointed secretary pro tem.

In response to the address of welcome by Dr. Potter, Dr. Hemstreet of Glen Falls opened the discussion of the "Use and abuse of footwear," intermingled with witty episodes of his three-hour trip to Plattsburg. He especially called attention to the Podiatry Shoe Co. which was incorporated the first of the year for $50,000 under the laws of the State of New York and said that the time was coming when the public would go to the chiropodist for a prescription for shoes. A letter was read from Dr. J. H. Wiederman with other communications and telegrams.

The guest of honor, Dr. B. Schroth, of Rochester, spoke of the education gained by attending these meetings, and urged the members to be loyal to their profession, chiropody, and closed with the question: "Have your fees advanced with the advancement of your methods and ability and your increased expenses?"

Dr. J. H. Callahan was greeted with applause as he arose to address the meeting on the Reunion of Chiropody and the Law. He said that the keystone of the future chiropody was set when Dr. Maurice J. Lewi resigned his position in Albany and was installed as executive officer in the First Institute of Podiatry." Dr. Downing of Albany became the educational advisor to the chiropodists of the State of New York and it behooves the members of the profession to live and act within the letter and spirit of the law at all times that they may hold the respect of the medical profession and that of the public at large.

It was voted to hold the next session in Catskill. An adjourned meeting was held at the office of Dr. Potter, 9 Bridge Street, Plattsburg, at which time a

demonstration of electricity with the use of the violet ray was given by Dr. Andrew Callahan in the after-treatment of a case of ingrowing toe nail.

WOMEN APPLICANTS WIN OUT IN STATE CHIROPODY EXAMS

Stiff Quiz Proves Too Much for Men—State Society Enlarged.

Mrs. Mabel Burns of Spokane and Mrs. Velma Mapes of Missoula, Mont., two of the four applicants who took the Washington State examination for licenses to practise chiropody, passed the state board quiz and were admitted to practice. The examinations were given by Dr. George R. Davis, Dr. J. C. McCain and Dr. Margaret DuVall-Cover, members of the state board, in the office of Dr. Cover in the Frenwell Building.

Some of the questions proved to be too much for the two men applicants, who both failed to qualify. Examples are:

"Briefly describe the ankle joint."

"Differentiate between hyperidrosis, bromidrosis and anhidrosis."

"What is cellulitis?"

"Describe epithelial tissue as to (a) bursa, (b) blood; (c) hair, and (d) nails."

The membership of the state association of chiropodists has beeen increased by the admittance of the following Spokane people: Dr. Minna Horton, Dr. J. A. Morse, Dr. M. Morse, O. C. Parker, Dr. Thurston, Milton Jubbell, Dr. Jessie Griffin, Dr. Velma Mapes, Dr. Odessa Thayer and Mildred Simonds.

Discuss By-Laws

The matter of the new constitution and by-laws, adopted recently by the National Association of Chiropodists, providing the membership in the national organization be limited to opersons affiliated with state organizations, was discussed at length by the Spokane chiropodsits at their final session Sunday night.

CALIFORNIA

Notes.—Major George K. Herzog who recently returned from Siberia has been promoted to Colonel of Medical Reserve Corps, stationed in San Francisco. Colonel Herzog is Professor of Anatomy in the California College of Chiropody.—— The big event in chiropodial circles is the approaching state convention of the Pedic Society of California. We expect to make this a gold event. Chiropodists from all parts of California will wend their way to San Francisco, on the first Saturday of December. The San Francisco practitioners are all excited over the event, and no doubt will do themselves proud in entertaining the delegates. An event of this character tends to cement the friendship and fraternal brotherhood of the members of the profession.——Dr. Wm. F. Leck, President of the Pedic Society of California, and Dr. J. A. Lesoine were the delegates to the N. A. C. held in Minneapolis, August 4, 5, 6, 7. Dr. J. A. Lesoine rendered a verbal report of the activities of the convention. California is proud that Dr. Lesoine was re-elected fourth Vice-President of the N. A. C.——Dr. S. Rutherford Levy has been appointed chairman of the Investigation Committee of the Pedic Society of California and is actively at work locating illegal practitioners. All members are requested to co-operate with this committee, toward the end of stamping out unlicensed practitioners of chiropody.——Dr. David Kantor and Dr. Harry Davis, graduates of the California College of Chiropody, have opened offices in the Gillette Building, and the good wishes of the profession go out to them.——California undaunted by the failure of obtaining the 1920 N. A. C. convention will again be to the front next year for the 1921 convention. In the meantime all success to Philadelphia and the 1920 N. A. C. convention.

WASHINGTON

Notes.— Washington chiropody news of note has been scarce for the past few months, owing to war conditions first, and afterward a laxity of general interest. But we are glad to report a wide-awake meeting for July and also for August. Both meetings were held in Seattle and were well attended.—— There is a movement on foot both in Eastern and Western Washington to stimulate the "Get-Together Spirit," which soon promises to bear fruit.—— We are trying to make our meetings more scientific and interesting, so that all chiropodists in the state, who are not members, will feel that they cannot afford to remain on the outside.

The first chiropody examination in the State of Missouri will take place on October 8, at the Baltimore Hotel, Kansas City. Those desiring to participate in this examination should communicate with George H. Jones, M.D., Secretary State Board of Medical Examiners, Jefferson City, Mo.

The Pedic Items

The Official Publication of the National Association of Chiropodists

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COMMUNICATIONS concerning more than one subject — manuscript, news items, reprints, change of address, payment of subscriptions, information wanted, etc.—correspondents will confer a favor and will secure more prompt attention if they will write on a separate sheet for each subject.

ADVERTISEMENTS — Advertising forms go to press on the 20th of month. To secure insertion, cuts and copy must be in on that date.

MANUSCRIPTS should be typewritten, double-spaced, and the original, not the carbon copy, submitted. Carbon copies of single-spaced manuscripts are not satisfactory.

ANONYMOUS CONTRIBUTIONS, whether for publication, for information, or in the way of criticism, are consigned to the waste-basket.

NEWS—Our readers are requested to send in items of news, also **marked** copies of newspapers containing matters of interest to chiropodists. We shall be glad to know the name of the sender in every instance.

A PARADOX

In a recent number of one of the most reputable medical journals published in this country, there appeared an article on "Bunion—its Cause and Cure," written by a captain in the Medical Reserve Corps, U. S. A. Because the subject treated therein is of vast interest to our readers, the article in question was re-published in the June number of the Pedic Items. Otto F. Schuster, Professor of Podiatry Orthopaedics on the faculty of The First Institute of Podiatry, took grave exceptions to the conclusions drawn by the author, formulated his ideas in an article and sought to have the same published in the journal which printed the original contribution, on the theory that the readers of that publication would be most interested in his contraversial attitude.

Because Schuster is not a graduated doctor of medicine the editor of this highly respectable medical journal declined to publish his article. Ordinarily this judgement would have been wise because, as a rule, little can be contributed by non-medical writers which will add to the fund of medical lore or which can help to enlighten the medical practitioner. Schuster's article was eagerly accepted by the editor of the Pedic Items and appeared in the July 1919 issue. Numbers of physicians, some of them accomplished orthopaedic surgeons, have told us that Schuster's contentions as to the deductions made by the author of "Bunion—its Cause and its Cure," are sound and that he has completely shattered the theories of the Captain.

Is it not a sad commentary on medical procedures that such an incident as here related should have become possible? Is the road to knowledge to be blocked by a devotion to "ethics" of a character which do not run on all fours with scientific advance? Cursory inquiry would have led to the undisputed information that even though Schuster never was graduated from a medical school, his self-acquired knowledge, his years of professional experience with foot lesions, his mastery of pedic anatomy and physiology, his familiarity with pathology, his mechanical intuition, amounting to almost genius, all of this, coupled with his years long intimate practical association with the very best orthopaedic surgeons in the country, constitute him a factor in the field of foot orthopaedics whose opinion is of more than passing moment.

Eliminating the question as to whether Schuster or the Captain is right in the indicated controversy (and we will wager a big apple that a jury of orthopaedists would unanimously declare Schuster's position as the sound one), is it proper, is it good morals for a medical journal to disseminate information on scientific matters, about which there is controversy, without according their readers the privilege of reading what is to be said on the other side?

This incident is merely an illustration of a species of intolerance which was displayed by illiberal physicians who ridiculed the pioneer attempts to uplift chiropody. However "those who came to scoff remained to pray." We have won our way by earnest, honest, faithful educational and scientific application. When the goal will have been reached and all podiatry practice is in the hands of licensed physicians, the merits of our propaganda will shine out in brilliant contrast to the acts, born

of skepticism, of the "Know-Nothings" in medicine.

In the meantime there are probably hundreds of physicians who are mistakenly accepting distorted views on the cause and cure of bunion because they have been robbed of the opportunity to read the conclusion of one who, though thoroughly armed with the facts, unfortunately is, medically, non persona grata.*

*This article on "Bunion—its Cause and Cure," uncontradicted as to its author's conclusions, is being re-printed in other medical journals. They are "false facts" paraded in the medical press to fasten themselves in the minds of those unequipped to recognize the sophistry employed by their sponsor.

PROMOTIONS IN THE ARMY

Dr. Harry P. Clifton, chairman of the N. A. C. Army Service Committee, explains why chiropodists were not promoted as rapidly as their work entitled them to be.

"Most camps were divided into two battalions, one training for over sea's duty, the other, the Development Battalion, which remained at camp to fit the soldiers for duty. The Development Battalion was divided into divisions, orthopedic, genito-urinary, eye and ear, etc, Each of these divisions rated so many non-commissioned officers, who were appointed by the commanding officer of the battalion. When the major of a particular division wished to advance a man, he recommended him to the commanding officer. If there was a vacancy, and the commanding officer had no friends left to fill it, the major's appointee might, if the commanding officer was in good humor and the major stood well with him, get his appointment.

"The following is a report of conditions in a camp near one of our large cities. There were three chiropodists, two osteopaths, four masseurs, and one physical director, who, with one exception, were all college graduates. This division rated twenty-two sergeants, one of whom was an osteopath and one the physical director; the rest were clerks assigned to the division by the commanding officer. One case in particular was that of John Doe, a four-year medical student, who, owing to illness, lost a great deal of the first half of his fourth year, yet had ambition enough to try his final examinations. He lost out by four-tenths of one per cent, receiving an average of seventy-four and six-tenths per cent, out of seventy-five required to pass. He enlisted, by special induction, into the medical corps. Did they make him a sergeant? Yes, three months after the armistice was signed, when a new commanding officer took charge."

CURE OF MULTIPLE WARTS ON THE FACE

Charles Ind (British Medical Journal, July 5, 1919) says that the removal of these tiny warts is often very difficult, and he records a case in which all of the usual methods of treatment were applied for long periods of time without the least benefit. Finally the patient was promptly cured by the following simple combination of methods: The warts were painted three times a day with a saturated solution of salicylic acid in alcohol and on the following morning they were out off by means of a flat, sharp steel instrument, bevelled on one side only. This procedure was entirely painless and left a slightly bleeding point at the site of each wart. The surface was immediately painted with the salicylic acid solution, and this was repeated twice on the same day. This left small brown scabs, which were bathed once daily with pure alcohol until they dropped off, leaving a perfectly smooth, healthy skin surface.

[There is no reason why this method of removing warts should not be tried out in cases of verruca on the pedic extremities. If the delicate skin of the face does not suffer from this form of medication, the more hardy integument of the foot should not be unpleasantly affected. Of course the variety of warts seen by the podiatrist are more firmly attached to the underlying tissues than are facial warts and even after the operator has snipped them off, after the use of the salicylic acid solution, as advised, it may be necessary to treat the radix as suggested in "Practical Podiatry."—Editor].

OUT-OF-TOWN CHIROPODISTS

When your patients visit New York, recommend that they avail themselves of the opportunity of being fitted with Podiatry Shoes. The quality of the merchandise, the corrective features of the shoes, and the scientific method of fitting will appeal to the patient. The establishment, located at 25 West 50th Street, near Fifth Avenue, has an air of exclusiveness not found anywhere else.

Chiropody Education

Welcome to podiatry literature "The Chiropody Record"! This publication is now being published monthly and promises to be a valuable medium for contributing the news and the advances of the profession.

* * *

Prof. Edward Adams is back from service. This information will be gratefully received by all who know the accomplished surgeon and will be particularly pleasant reading to the students of The First Institute of Podiatry with whom he is a great favorite. On his way east, Dr. Adams, stopped off at St. Louis and at Cleveland, in each of which centres he delivered an address to the chiropodist's societies, a report of which will doubtless appear later on in this publication.

* * *

"Podiatry as a Vocation," is the title of a brochure from the pen of Dr. M. J. Lewi. It was written for the benefit of the soldiers, sailors and marines who, after injury and disease which impaired them, are being rehabilitated under governmental direction. Ten thousand of these imprints are now being circulated in the twenty-one sub-divisions of the Federal Board for Vocational Occupation with a view to imparting knowledge to the "boys" which shall acquaint them with the pros and cons of our profession as a breadwinning field.

* * *

The article in question is written in a style different from Dr. Lewi's usual literary contributions. It deals with facts that are unembellished with polished phrases such as are common in the doctor's customary vein, with which we are so familiar, and plainly and succinctly telling the story comprehended in the title. It contains a summary of the genesis of chiropody, its development and its aspirations. It speaks of the various podiatry schools, their courses, the degrees they confer, the laws governing practice in the various states, the requisites for success, the possible incomes, the choice of a location and concludes with a list of the States in the United States in which our profession is regulated by legal enactments. This imprint should prove valuable in securing students for all of the schools and the author of the article is to be congratulated on his latest contribution to podiatry propaganda.

On September 15, under the auspices of the Long Island College Hospital, the National Council of the Y. M. C. A. launched its campaign against the unhygienic shoe. Moving pictures showing shoe defects and their disastrous effects on the feet were taken by one of Brooklyn's podiatrists. These in turn are to be utilized by lecturers who will appear before various audiences throughout the state and later on throughout the country, in efforts to educate the laity as to the baneful and body-crippling results following the wearing of defective foot-gear. This is all in keeping with the efforts of the State Pedic Society along similar lines and it is suggested that Prof. Schuster and President Keller advise and co-operate with the Y. M. C. A. officials having this matter in charge, so that by a union of forces the best channels of activity can be traversed for accomplishing their laudable purposes. Let it be understood that the initiative in this educational campaign was taken by our organization and the historian of the future should note this fact.

* * *

The Minnesota College of Chiropody is to open its doors to students during this month. Those at the head of this newest addition to our educational forces are men of sagacity and of sincere purposes and we wish them every success. We are advised that they are to be under the guidance of Ralph St. John Perry, M.D. and that implies a high standard both academically and professionally. These two latter qualifications are all important and Dr. Downing's clear cut statements on this subject when addressing the members of the New York State Pedic Society at Albany several years ago, were exceedingly helpful in stimulating the profession of the state in standing back of The First Institute of Podiatry in every step taken by them to advance the standards of the profession. Good luck to you, gentlemen of the Minnesota College of Chiropody.

* * *

Now that the war is history, we in the United States are looking forward with eager expectancy to the creation of the British School of Chiropody in London, England. Notwithstanding the trials and tribulations of the members of our profession across the waters, they have not ceased to keep in mind their former ambitions to create a school of podiatry teaching as planned before the beginning of hostilities. Under the able leadership of Mr. Runting, the nu-

cleus to such an undertaking was created and the plans were being made effective by co-operation and monied contributions. Let us hope that the check has been but temporary and that our cousins will now start in with a vim to accomplish the project which has been so dear to them. All help which we can accord is theirs and our best wishes go out to them in all efforts they may be able to put forth for the ennobling of our profession through the establishment of a seat of chiropody learning. And how long will it be before France, Italy, Germany and the other governments of Europe create like institutions?

SCHOOL NOTES

(The First Institute of Podiatry)

William C. Buntin, M.D., Professor of Histology at The First Institute of Podiatry, has returned from service in the United States Army, to resume practice at 173 West 81st Street, New York City. Dr. Buntin specializes in urology and venereal diseases.

* * *

Prof. Fleissner, head of the department of Chemistry at The First Institute of Podiatry, is again to be in charge in the 1919-20 course. Prof. Fleissner and Alfred Joseph are the only remaining members of the original Lexington Avenue School faculty now with the Institute.

* * *

Dr. A. J. Gelarie is to deliver a series of lectures during the course with special reference to Diagnosis. If Prof. Gelarie educates the students in keeping with the methods which he so successfully employs in his practice, each graduate of The Institute will be a "winner."

* * *

Dr. Joseph Mark will, as heretofore, fill the chair of Physiology with Dr. Roven, just returned from the army, as adjunct. Both of these gentlemen are well and favorably known to former students of The Institute as earnest and faithful teachers.

* * *

Of course "Mac" is to continue on with us! Prof. McAllister has been having a most strenuous time during the past year, educating surgeons along the lines of their specialties. There are hundreds of surgeons throughout the country, who were "Mac's" pupils and he made good with them as he has always made good with us. Jack Grossman, one of "Mac's" star pupils is also to continue on as adjunct in the Anatomy department.

* * *

Prof. Montgomery has an added title this year; he is not only to keep on teaching Dermatology but is to be professor of Syphilography. In addition to keeping his scheduled lecture hours, he will be in attendance at the clinics on each Friday night to give advice concerning all foot cases caused by or complicated with venereal diseases. Prof. Montgomery is a great favorite with students and with practitioners and the latter send to him all their cases of skin lesions requiring constitutional treatment or expert care.

* * *

Notwithstanding his official cares and his professional duties, E. K. Burnett, professor of clinical podiatry is to be on the lecture program, both for didactic and for clinical work. Thus, undergraduates as well as post-graduates will derive the benefits of his activities. Prof. Burnett will be assisted by Arthur J. Morley, M.Cp., who for the duration of the war was chief of the army podiatry service at Camp Mills.

* * *

Our tried friend, Prof. Paul Luttinger, even though married since the armistice went into effect, is not proving unloyal to his first love, The Institute. He is to preside over the department of Bacterioiogy and in addition is to conduct the classes in their visits to museums, laboratories, etc., where he is to lecture to them on matters pertaining to botany, zoology, comparative anatomy and the kindred sciences which are of basic value to all entering upon a professional career. Isaac Siegel, M.Cp is to aid in this department.

* * *

Otto F. Schuster is making a new lineup in the department of Mechanical Podiatry. To his former staff of assistants, Bryde Campbell, M.Cp. and M. Scheimberg, M.Cp. have been added; the former to aid in the clinic, the latter in the lecture hall. Marshall and Anne Almarez, M.Cp., are to have charge of the massage department. The entire orthopedic clinic has been renovated and now has the appearance of a new outfit.

* * *

Prof. Schuster will not only lecture as heretofore, but will be at the clinics three nights each week.

* * *

A. H. Stafford, M.D. is now to be

head of the department of Orthopedic Surgery and is also to lecture on Electro-Therapeutics. In the latter department, John Long, M.Cp., is to assist him. This constitutes an entirely new departure and will prove a great asset to The Institute. Dr. Stafford is a man of wide experience and of great ability and the students of all grades will profit greatly from his teachings and demonstrations.

* * *

[Space will not permit of printing additional school notes in this issue—for further data along these lines see our November issue.—Editor.]

Retires from Practice.—A few months ago, Dr. Otto Sjogren, after a quarter of a century in chiropody, retired from practice. He went to a Massachusetts farm, where he could lead the simple life for a year, after which he will go to Sweden to enjoy the competence which he gained in his practice. Dr. Sjogren has always been an exponent of the elevation of chiropody. He was one of the three members of the executive council of the First Institute of Podiatry, as well as Professor of Practical Podiatry. His practical demonstrations of operating and shielding were always well attended by the students, and he took the same care and patience in his instruction, as he did in his private practice. Every chiropodist who knows him wishes him godspeed and a full enjoyment of his hard-earned reward.

Personal Notes.—After attending the Minneapolis convention, Dr. Frances Lee Hartshorn spent a week in Chicago before returning to Denver.——Drs. De Wolfe and Gillespie purchased equipment for two additional operating rooms for their Denver office.——Dr. C. Wenberg, of Idaho Springs, sent to the convention for a new visiting case with instruments.——Dr. S. W. Gillespie and wife spent two weeks in the mountains of Colorado before they went to the convention. When the convention closed they remained two days in Minneapolis, then went to Oklahoma on a visit to Mrs. Gillespie's parents. Incidentally they called on Dr. Badger, of Tulsa, and several chiropodists in Muskogee. From there Dr. Gillespie went to Texas, while Mrs. Gillespie went to Denver.——During her absence, the following chiropodists called at Dr. De Wolfe-Gillespie's Denver office: Drs. Helen and Eunice Moran, of Pawtucket, R. I., Dr. Louis Winthrall, of San Francisco, and Dr. Marie J. Peterson, of Chicago.

REPORT OF CALIFORNIA'S N. A. C. DELEGATE

Los Angeles, Cal., Aug. 18, 1919.

To the Officers and Members of the Pedic Society of California:

Having been your delegate to the N. A. C., I beg to report as follows:

I arrived in Minneapolis on Sunday, August 3, and although the elements frowned—it rained pitchforks—I found many smiling chiropodists from Minnesota who extended a most cordial welcome.

After an informal opening on Monday morning, the delegates at once retired to the ante-room to confer on the constitution and by-laws. At the formal opening on Monday night, the Mayor of Minneapolis welcomed the N. A. C. to his city; Dr. Bennie, of Pennsylvania, responding. After a short business session the evening was spent in a "get acquainted" party.

On Tuesday the delegates, after many good suggestions and a great deal of discussion, accepted the by-laws as amended. The principal achievement was the decision that each state was to be represented by one delegate. Tuesday afternoon the two big questions came up, and after election of officers, with the strong opposition of the officers of the N. A. C., San Francisco lost the convention for 1920 by a vote of 50 to 40. Possibly the reasoning of the officers was well founded, but I found that the hope of every chiropodist is to come to California to convention; and when the officers find that the Hudson River is not the center of the United States any longer, we will likely have a convention out West.

Wednesday was a mixture of business and pleasure. Thursday was devoted to some very interesting clinic work; and between 5 and 6 P.M. everybody had bid a fond farewell to Minneapolis and their new-found friends. Too much praise cannot be given to the Minneapolis chiropodists, who so admirably handled every detail.

In conclusion, I want to state that it is well worth the trip for old-timers as well as students to participate in a convention for the benefit of education as well as business and the general good derived by the strengthening of the N. A. C.

Respectfully submitted,

WILLIAM F. LECK.

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N. C. Mueller
Armelia Bibeau
George Scherer

Secy-Treas. Ernest Graff, Hotel Plaza, N. Y. C.

Legislative Committee: . . . . . H. P. Clifton, Chairman, 712 Union Tr. Building, Baltimore, Md.

Membership Committee . . . . . H. P. Kenison, Chairman, 58 Winter Street, Boston, Mass.

Scientific Committee . . . . . W. V. Ramsburg, Chairman, Pillsbury Bldg., Minneapolis, Minn.

Committee on Ethics . . . . . J. A. Lesoine, Chairman, 1225 Broadway, Oakland, Cal.

Woman's Committee . . . . . E. O. Mann, Chairman, Granite Building, Rochester, N. Y.

Committees for 1919-1920

Your president is pleased to announce the personnel of your committees for the year as follows:

Legislative Committee.—Harry P. Clifton, chairman, 712 Union Trust Bldg., Baltimore, Md.; M. H. Butler, Utah; U. Z. Litsey, Ky.; G. D. Scherer, Tenn.; M. H. Bauer, Ala.; F. W. Magoon, Vt.; S. J. Olson, Ia.; E. C. Murphy, Minn.

Membership Committee.—Harry P. Kenison, chairman, 58 Winter Street, Boston, Mass.; H. B. Donaldson, Mass.; E. L. Brown, Pa.; G. M. Shreve, Ohio; I. J. Reis, Ill.; N. C. Mueller, Va.; R. Mascaro, La.; W. H. Chadwick, Okla.; S. W. Gillespie, Tex.; J. B. Anderson, Mont.; C. R. Hannock, Cal.

Scientific Committee.—Walter V. Ramsburg, chairman, Pillsbury Bldg., Minneapolis, Minn.; Advisory Council, Otto F. Schuster, N. Y.; Reuben H. Gross, N. Y.; U. E. Whiteis, Ohio; Committee, H. C. Noll, Ct.; Ben Levy, N. Y.; G. M. Shreve, Ohio; J. C. Green, Ill.; W. E. Ellis, Va.; A. Lobb, Tenn.; F. E. Silvers, Neb.; B. DeW. Gillespie, Colo.; S. R. Levy, Cal.; E. J. Martucci, Pa.

Committee on Ethics.—John A. Lesoine, chairman, 1225 Broadway, Oakland, Cal.; Chas. Hans, Jr., N. J.; E. C. Rice, M.D., Dist. Columbia; E. H. Keller, N. Y.; Wm. F. Leck, Cal.; R. Mascaro, La.; C. H. Grigg, Ill.; M. D. Cover, Wash.

Committee on Public Information.—E. C. Stanaback, chairman, 481 Broad Street, Newark, N. J.; E. A. Griswold, Mich.; Ben Levy, N. Y.; S. J. Olson, Ia., and chairmen of all standing committees.

State Chairmen for 1919-1920

Alabama	M. H. Bauer
Arizona	J. D. Barr
California	Wm. F. Leck
Colorado	P. J. Geddy
Connecticut	L. C. Hathaway
Delaware	A. M. Schaefer
District of Columbia	W. W. Georges
Florida	O. J. L. Tonnisen
Georgia	Chas. Koch
Illinois	Chas. Kenison
Indiana	D. S. Halbrooks
Iowa	S. J. Olson
Kansas	C. L. Tepfer
Kentucky	U. Z. Litsey
Louisiana	R. Mascaro
Maine	Wm. D. McNaughton
Maryland	A. Behrend
Massachusetts	J. P. Buntin
Michigan	L. B. Masters
Minnesota	W. V. Ramsburg
Missouri	H. C. Clark
Montana	J. B. Anderson
Nebraska	F. F. Funder
New Hampshire	Mrs. W. W. Knee
New Jersey	Chas. Hans, Jr.
New York	D. M. Hogan
North Carolina	J. G. Robinson
North Dakota	N. S. Baker
Ohio	M. S. Harmolin
Oklahoma	W. M. Chadwick
Pennsylvania	A. E. Smallwood
Rhode Island	H. S. Batchelder
South Carolina	J. J. Williams
South Dakota	B. F. Allbee
Tennessee	K. S. Scherer
Texas	J. A. Herschel
Utah	M. H. Butler
Vermont	F. W. Magoon
Virginia	W. E. Ellis
Washington	E. P. Johnson
West Virginia	W. C. Viehman
Wisconsin	E. M. Pohlke
Wyoming	C. A. Ligler
British Isles	E. G. V. Runting
Canada	I. Goldman

Illinois the First

At a regular meeting of the Illinois Pedic Association held on September 3 in Chicago it was unanimously voted to

approve the constitution and by-laws of the N. A. C. and apply for affiliation.

Illinois thus goes down in the history of chiropody as the first state to take such action. All hail number one; who will be next?

Scientific Committee Plans

Walter V. Ramsburg has many new ideas which are now being worked out with his Scentific Advisory Council for a complete educational program for the coming year.

* * *

It is the idea of the committee to be of material assistance to the state societies in the development of their scientific programs, and each local association will shortly hear from the national committee.

* * *

The national committee has been so constituted as to have a representative for each group of states who will be directly responsible for the work of the societies in his zone, and who will supply these organizations with information, lectures or lecturers as they may need them.

* * *

A group of topics have already been selected as lecture subjects which will be of vital interest to the practicing chiropodist; these papers will be prepared by eminent men on the faculties of our colleges, each of whom is a specialist in his particular work. Once completed, these lectures will constitute a complete course for a society to read during the year.

* * *

The Scientific Committee is also arranging for a number of lecturers who will be at the disposal of the state societies for their meetings. It is to be hoped that a long list of prominent speakers will be compiled.

Lost Instruments

During the clinics at the Minneapolis convention Dr. E. C. Murphy lost several instruments. It is particularly annoying to volunteer your services for clinic work, sacrificing much of your own time and pleasure, and then lose some of your personal property.

If anyone knows anything about the whereabouts of Dr. Murphy's instruments please communicate with him at 405 Pittsburgh Bldg., St. Paul, Minn.

1920 Convention

Now is the time to begin to think of Philadelphia, to save your pennies so that the trip to "Quakertown" may be a reality next August. The Minnesota Society has formed a "Philly Club," composed of members of the state society who are pledged to attend the 1920 meeting. This club already boasts of six members, and they hope to enroll twenty-five. Let us hear of some other local societies starting similar groups.

CONVENTION AFTERMATH

Our hat is off to the three women who made the convention the success it was. We refer to Drs. Bibeau, Loeslin and Jones. These three girls worked day and night to put it over, and believe us, they did. No matter when and where, you could always find one of them with a pleasant smile, ready to help the visiting delegates.

* * *

And did you see the Finegan girls? Both of them under the chaperonage of Margaret Schreiber of Chicago. Yes, the Finegan girls, Kate and Annie, both practise chiropody and come from Fort Worth, Texas. They are mighty fine girls, and we hope that they will come to conventions regularly.

* * *

Lest we forget, Walter V. Ramsburg, the "little fellow" who came to St. Louis, and left with the convention in his hat, is unquestionably the livest wire we know. This boy is a glutton for work, but like the rest of us heavy-set folks, never loses his poise, avoirdu-or otherwise.

* * *

A. A. Loeslin, lesser half to the lady aforementioned, and practitioner of chiropody in Minneapolis, (the madam practises in St. Paul) was the guide and spiritual advisor for the delegates. Here is a man who will soon rank with the leaders in N. A. C. affairs, if signs mean anything at all. If the readers can remember what we said about Frank Volmer last year, please duplicate and then some.

* * *

The feeling that exists among the chiropodists of the "twin cities" is the most wonderful example of harmony and friendship that has ever been exhibited among practitioners of our profession. The relationship of one chiropodist to the other is much the same as we find among brothers and sisters who have been properly raised. No jealousies and petty grievances, but only praise and good words, one for the other. We envy them more than we can tell, and hope to have them

teach us the trick, so that we can bring about the same feeling in New York.

* * *

The entertainment given by the local society was almost too much. We had a four-hour boat ride on the Mississippi, followed by a trolley ride, and then supper at one of Minnesota's many pretty picnic parks. Then we danced until midnight, and finally home and to bed, all played out, but still happy as a baby. In addition to the above, we had dancing each night at the hotel. This is the first time in the history of conventions of the N. A. C. that an orchestra was engaged for the entire session.

* * *

Dr. J. J. Monahan of Chicago delivered a lecture illustrated with stereopticon slides, called the "Evolution of the Foot." This is the most interesting lecture we have heard in years, and shows what Dr. Monahan thinks of chiropody and chiropodists. We feel convinced that he spent many months collecting the material for this talk, and he did it all for the members of our profession, simply because he thinks we are trying to improve ourselves scientifically. All praise to Dr. Monahan and to the members of his profession who are helping our cause.

* * *

We had the pleasure of operating on two cases before the delegates and again want to impress the chiropodist with the necessity of becoming familiar with radical procedures in the surgery of the foot. The day when it will be expected of the chiropodist is not far off, and it behooves all of us to be ready for the day when it arrives.

* * *

The next convention goes to Philadelphia, and please remember that we want to see you there. That's all.

R. H. G.

Good Publicity.—While Dr. W. M. Chadwick, of Oklahoma, was at the conveniton, his two associates, Drs. MacGregor and Morris, gave an interview to Josephine B. Lincoln, a young woman journalist, with the result that a three-column article, entitled "Podiatrist, Friend of Aching Feet," was published in the Daily Oklahoman, of Sunday, August 17. This article was one of the best press notices ever given to our profession, and will be the means of booming business for the podiatrist. Dr. Ray V. Morris is a graduate of the First Institute of Podiatry of New York.

PERSONAL NOTES

Dr. A. O. Penney, president of the Podiatry Society of the District of Columbia, took a trip through the Middle West, accompanied by Mrs. Penney and the boys. They first visited Chicago, then Indianapolis and Cincinnati, in which cities Dr. Penney called on as many chiropodists as it was possible to visit.

* * *

The Denver Chemical Mfg. Co. have moved their offices to Nos. 20, 22 and 24 Grand Street. The laboratory, receiving and shipping departments of Antiphlogistine are now located at Nos. 23, 25 and 27 Sullivan Street.

* * *

Dr. Victoria Dobrient was appointed secretary of the Wisconsin Chiropody Society to finish the unexpired term of Dr. Ashard.

* * *

Sigmund Epstein, M.D., the well-known military orthopedic surgeon, has returned from military service. He will locate at 15 W. 44th Street, N. Y. City.

* * *

Dr. Mary E. Cover, a graduate of the First Institute of Podiatry, was recently married to E. E. Reick, a well-to-do Pittsburgh man.

* * *

A substantial reward having been offered for the return of President E. K. Burnett's hat, which was lost in Minneapolis, the same was expressed to New York, it having been discovered by Detective W. V. Ramsburg.

* * *

The Western Branch of the Chiropody Society of Pennsylvania have inaugurated a co-operative supply bureau, where the members of the society can purchase drugs, plaster, bandages, etc., at cost.

* * *

Mr. Leo Hart has severed his connection with Van Harts. He expects to go into the retail shoe business in the near future, and will send out announcements, as soon as he has secured a location.

* * *

Dr. Helen C. Sexton, of Santa Barbara, Cal., sends the following advertisements which appeared in the Knoxville, Tenn., Journal and Tribune, under the heading of "personal".

INGROWING NAILS, WARTS, CORNS, corrected through conversation, 25c a corn. Telephone 1844 Smiling Chiropodist, 112 South Gay.

DOCK RICHARDS—Army foot specialist. Corns, bunions and ingrowing nails. St. James Hotel. Old phone 1285.

PODIATRY SHOE COMPANY,, Inc.

Incorporated under the Laws of the State of New York

Capital Stock $50,000—Divided Into 5,000 Shares at $10 Share

OFFERS

To the Public Generally and to Chiropodists Preferably

1,500 SHARES OF CAPITAL STOCK AT PAR.

The Podiatry Shoe Company was organized for the purpose of merchandising ready-made, corrective and comfortable shoes, which will enable the orthopaedist and the chiropodist to treat his patients afflicted with foot ailments with some degree of success.

On July 1st, 1919, the first store of the Podiatry Shoe Company, Inc., was opened at 25 West 50th Street, New York City. Shoes to the value of over $20,000 had been ordered early in April.

In July enough merchandise was sold to cover the overhead expenses of over $1,000. In August (the slowest month of the year) the Company made a profit. From present market indications the stockholders will realize handsome dividends on their stockholdings.

When 1,135 shares of the capital stock had been sold for $11,350, it was deemed a sufficient sum to carry on the business, and no efforts were made to sell any more of the capital stock. But Mr. John G. Dyer, counsel to the company, informed the directors that the law of the State of New York provides that half the capital stock of a corporation must be sold for cash within one year of its date of incorporation. Accordingly, the Podiatry Shoe Company, Inc. offers to the Public generally, and to the Chiropodist preferably, 1,500 shares of its capital stock at par, $10, per share.

The Company is on a firm financial footing, having discounted all its bills. It has substantial bank backing. It does a cash business.

This offer of capital stock in the Podiatry Shoe Company, Inc. is a real good business proposition, and one which will undoubtedly bring large returns to the investor.

All checks for subscriptions for the capital stock should be sent to the Podiatry Shoe Company, Inc., 25 West 50th Street, New York City.

STATE BOARD OF MEDICAL EXAMINERS OF NEW JERSEY

CHIROPODY EXAMINATION

October 1918

Anatomy

Chas. A. Groves, M.D., Examiner

1. Give the distribution of the radial nerve below the wrist.
2. Describe the course and distribution of the median nerve.
3. Describe the course and distribution of the ulnar nerve.
4. Mention a muscle which (a) moves the thumb outward; (b) which moves the foot inward.
5. Name five muscles of the back of the leg.
6. Name and describe the arrangement of the tarsal bones.
7. Give the classification of joints with an example of each.
8. What bone forms the heel and with what does it articulate?
9. Describe the ankle joint.

Physiology

J. William Hughes, Examiner

1. Give composition of the blood.
2. What is the normal (a) temperature (b) respiration (c) pulse.
4. Compare voluntary with involuntary muscle.
5. What is synovial membrane? Where in the foot is it found?
6. What are the three principal functions of the skin?
7. How are the nails nourished?
8. What varieties of connective tissue are found in the feet?
9. Name the muscles which extend the toes.
10. Define a reflex action. Give example.

Chemistry

Davis F. Borden, M.D., Examiner

1. What is a compound?
2. What is a styptic? Mention three most commonly used.
3. What is the principal local use of iodine in chiropody?
4. Which of the mineral acids is the strongest?
5. What is chemistry?
6. How does peroxide of hydrogen act as a disinfectant?
7. Give the formula of "Lead and Opium Wash."
8. Explain the meaning of the term, "Chemically Pure."
9. What is the chemical composition of carbolic acid?
10. How do you neutralize the action of (a) carbolic acid; (b) nitric acid?

Therapeutics

Alexander Macalister, M.D., Examiner

1. What would be your treatment for an acutee inflammation in great toe joint?
2. How should iodine be applied to be most effective?
3. What local remedy would you use for excessive itching between the toes?
4. What is the common name and therapeutic use of plumb acetatis?
5. What pathological conditions would indicate the use of bichloride of mercury applications, and what strength solution would you use?
6. What are counter-irritants? Name 2.
7. What agent produces the best results in treating superfluous granulation tissue?.
8. Describe the treatment for ulceration.
9. Of what value is salicylic acid in chiropody; what form and in what strength is it usually used?
10. Define the difference between antiseptic and sterile.

Surgery

John J. Mooney, M.D., Examiner

1. Give treatment for proud flesh.
2. Define **sepsis.**
3. Causes and treatment of bunion.
4. Define inflammation and give treatment.
5. Causes and treatment for ingrowing toe nail.
6. Give methods of avoidance of post operative complications.
7. What are the dangers in the use of carbolic acid solution or ointments?
8. What are the indications for heat? For cold?
9. What complications can follow a surgical operation?
10. Give symptoms of flat foot.

ANSWERS TO QUESTIONS

The following are answers to the questions propounded at the October 1918 chiropody licensing examinations at Trenton, N. J. The answers are by Jack Grossman, M.Cp., and are given for the benefit of the readers of the Pedic Items:

Anatomy

1. The radial nerve divides into an external and internal branch, the latter giving off four digital branches to the ulnar side of the thumb and on the adjacent sides to two and one-half fingers. A communicating branch goes to the ulnar.

2. The median nerve arises from the outer (lateral) and inner (medial) cords, passes between the two heads of the pronator radii nerves supplying the pronators, flexors, first two lumbricales and the integument of the thumb, two **and** one-half fingers, and the radial side of the palm. Its branches are the muscular, anterior interosseous, palmer cutaneous, external and internal.

3. The ulnar nerve arises from the inner (medial) cord, passes between the two heads of the flexor carpi ulnaris at the inner condyle of the humerus, supplying the elbow and wrist joints, several muscles, and the palmar and dorsal integument of the little finger and half of the ring finger. Its branches are articular, muscular, cutaneous, dorsal cutaneous, articular (wrist) superficial palmar and deep palmar.

4. (a) Adductor pollicis. (b) Tibialis anticus.

5. Soleus, gastrocnemius, plantaris, flexor longus digitorum, tibialis posticus.

6. Astragalus, os calcis, scaphoid, cuboid, internal, middle and external cuneiform bones. The astragalus is above the os calcis. in front of the head on the inner side, it articulates with the scaphoid and the os calcis toward the outer side: it articulates anteriorly with the cuboid, superiorly with the astragalus. The three cuneiform bones articulate with the scaphoid posteriorly.

7. Synarthrodial, skull; amphiarthrodial, three main divisions, vertebrae; diarthrodial foot, hand; diathrodialare are subdivided into condyloid (metatarso-phalangeal articulation); arthrodial (tarso-metatarso articulation); ginglymus (ankle joint); endarthrodial (astragalo-scaphoid joint).

8. Os calcis, articulates superiorly with the astragalus, anteriorly with the cuboid.

9. It is a ginglymus joint made up by the tibia, fibula, and astragalus. Ends and articulating surfaces of bones are covered by cartilage (hyaline), lubricated by synovial membranes; bones are held together by seven ligaments four deep, an internal, external, posterior, anterior, and three superficial and by the three annular ligaments, anterior, internal and external. The deep ligaments hold the joint in a mortise, allowing no side motion, only the motion of flexion and extension on a transverse axis. The superficial ligaments form sheaths and

canals lined by synovial membranes, for the passage of tendons, arteries, nerves and veins going to the foot and toes. The tendons of the tibialis anticus, extensor longus digitorum and peroneus tertius pass through the canals in the anterior annular ligament. The tendon of the peronius longus and brevis pass in a groove behind the external malleolus. The flexor longus hallucis passes in a groove behind the tibia, astragalus and os calcis in its passage to the sole of the foot and the tibialis posticus and flexor longus digitorum pass in a groove behind the internal malleolus. Nourished by anterior and posterior tibial arteries; venous return by internal and external saphenous vein and posterior tibial vein; deep and superficial lymphatics. Nerves supplying this region: external saphenous, internal saphenous, anterior tibial nerve, musculor-cutaneous nerve, and posterior tibial.

10. The skin is primarily composed of layers of two parts, the epidermis and dermis, or true skin, separated by basement membrane rich in blood, and lymphatics. The epidermis is composed, from without inward, of stratum corneum, consisting of several rows of dried epithelial cells. Stratum lucidum (only on palmar and plantar surfaces). Stratum granulosum of irregular cells, showing granules supposed to be keratin (the beginning of conversion of kerato-hyalin to keratin). Stratum germinatum or germinating layer: this layer having greatest power of vtiality and repair. The derma is composed of the papillary layer having irregular projections called papillae, containing ends of nerves, when they become nerve-papillae and touch corpuscles, and others, containing capillary plexuses or loops, become muscular papillae. The uneven ridges of papillae give the distinctive markings on the palmer and plantar surfaces, which never change through life, and are known as finger prints, used by the police authorities as a positive means of identification of each individual. The reticular layer, below the papillary layer, blends into the tela subcutanea without a distinct line of demarkation. The reticular layer contains fat cells in abundance, lymphatics, the hair shaft, sebaceous glands and duct of sweat glands, nerve and arterial and venous plexuses, sometimes a sweat gland, but usually these are found deeper in the tela subcutanea, as well as the hair roots. Skin functions as a heat radiator, and is controlled by vasomotor nerves. Functions: to protect underlying structures, an intact epidermis is proof against entrance of bacteria. The skin is an accessory respiratory and secretory organ, regulating the body temperature by heat radiation; through the skin consciousness of outside world impressions, through the sense of touch, is conveyed to the brain.

Physiology

1. Blood is composed of two parts, a colorless material called serum, and the solid constituents made up of red corpuscles, white corpuscles divided into large and small lymphacites, polymophonuclear leucocytes, eosinophilies, basophiles. Liquid portion or serum, or plasm a, about sixty per cent of volume of blood; corpuscles, red or white, forty per cent. Blood contains a volatile acid (caproic acid), which gives it its peculiar odor: it also contains potassium chloride, in solution, giving to it its salty taste; it contains a solution of potassium phosphate which renders it alkaline, also contains in its plasma, all elements of nutrition and waste, carbohydrates, fats, proteids, urea, inorganic salts, CO_2, carbon, hydrogen, oxygen, nitrogen.

2. Structurally their coats are the same, mainly inner serous coat, a middle or muscular and elastic tissue, and an external one of connective tissue; except that the veins at unequal distances have reduplications of their serous coat, forming valves to aid in propelling venous blood back to the heart, as well as to prevent back flow of blood. Arteries carry oxygenated or bright red blood; veins carry deoxygenated or bluish colored venous blood.

3. 98.6 degrees F.; 17-18 per minute; 72, in persons from 20 to 30 years of age.

4. Voluntary, or striated muscle, occurs in bulk and masses and forms the fleshy part of the body. They furnish the power of motion and locomotion. This type of muscle cell, under the microscope, shows light and dark striations, and is composed of contractile fibrillae, which impart to the muscle its power of contractility; the muscle fibers are covered by endomysium, forming primary bundles; primary bundles are covered by peumysium, forming secondary bundles, which are covered by epimysium, which surrounds entire muscle as well. The nerve plates which stimulate this muscle to action are found in the sarcaplasm of the muscle cell. Involuntary muscle, or nonstriated, variety, occurs in thin sheets and layers in the walls of hollow viscera and blood vessels. These muscles control lumen of blood vessels; they are also found in the genito-urinary tract, in the respiratory tract and in the digestive tract and are supplied by sympathetic nerves. These muscles contain but very little intercellular or connective tissue, the muscle cell having but one nucleus (voluntary can have from two to ten).

5. Synovial membranes are thin white fibrous sheaths of serous membrane, lying between bones, to form joint capsules, and secreting a fluid (synovial fluid) for the lubrication of joint or parts it covers or lies between. Between the tarsal bones, there are six synovial membranes.

6. (1) Protective organ; (2) organ of sense of touch; (3) regulator of body temperature.

7. By the matrix at the root of the nail; also through the nail-bed.

8. Bone, cartilage, (hyaline and white fibrous variety) muscle, white fibrous tissue, (loose and dense variety) adipose, reticular.

9. Extensor brevis hallucis, extensor longus digitorum.

10. An action produced by the transmission of an afferent impulse to a nerve center and its reflection thence as an efferent impulse, independently of volition. Examples: winking, when the eyes are threatened; recovery of body poise when about to fall from slipping; withdrawal from object, after touching a hot stove.

Chemistry

1. A compound is the union of two or more elements, in definite proportions, the resulting substance having new properties.

2. A styptic is a substance that arrests local hemorrhage by a contraction of the tissues and by coagulation of albumen.

*Alum, Monsel's solution, $AgNO_3$.

3. Antiseptic and germicide.

4. HNO_3.

5. Chemistry is the science which treats of the composition of matter and changes that matter undergoes.

6. By liberation of its oxygen, due to its decomposition.

7. One part tincture opium and seven parts lead water.

8. When a substance has been rendered absolutely free from all inert and foreign substances, found therein when in its crude form, by chemical or mechanical means it is said to be chemically pure.

9. C_6H_5OH.

10. (a) By means of alcohol, 95 per cent; (b) by means of ammonium hydroxide, or a weak solution of liquor potassae.

Therapeutics

1. Removal of cause, pressure due to ill-fitting shoes; removal of any excrescence over the seat of the inflammation to allow for drainage of over production of synovia, this to be done under aseptic conditions, application of wet dressing, using a mild, antiseptic astringent solution for the purpose, as, Borow's solution, diluted one part to three of water, or one part each of

Borow's solution, one of alcohol and two of water; rest of part, where possible, or by protection through use of pads, properly constructed to meet needs, when the congestion is reduced and discharge of synovial fluid has stopped; the use of Ung. ichthyol in from three to five per cent in lanolin; patient discharged as cured only when conditions have returned to normal.

2. To be applied with the grain of the skin (never criss cross or otherwise) and in the official seven per cent tincture by means of a cotton wound applicator.

3. Silver nitrate, five to ten per cent; if ineffective and other like medications fail, apply solution of sodae bicarb.

4. Sugar of lead. Used in preparation of lead and opium wash official in N. F. It is used as an antiphlogistic in the form of wet dressings.

5. Septic infections. Wet dressings in solution of 1-5000.

6. Agents applied to the skin to produce local inflammation over a part with a view to lessening the congestion of the deeper structures, by bringing the blood to the surface, thus giving relief. Mustard, turpentine stupe.

7. Silver nitrate, 50 per cent, to fused stick strength.

8. Removal of any overlying thickened epidermis, under aseptic conditions, as to field of operation, instruments, hands of operator, etc., removal of any necrosed tissue, and if any serious formation has occurred, affect thorough drainage by light gauze strip, the use of astringent antiseptic wet dressings, using any desirable solution for the purpose. When discharge is absent and ulcer is in a clean, healthy condition, marked by absence of discharge and odor, proceed to stimulate granulations by dressings or ointments, such as balsam of Peru, or ichthyol, five to ten per cent, scarlet red three per cent, dressing to be held in place by gauze or lint, bandaged, or by use of adhesive strips.

9. Used to disintegrate thickened epidermis, in treatment of verruca, vascular helomata, heloma neurofibrosum, onychophosis, and in all other conditions where for some reason or other the use of instruments or other agents are contra-indicated. Can be used as salicylated collodion, usually 15 per cent, or in ointment form, 15 to 65 per cent, and salicylic plaster.

10. An antiseptic is a substance destructive to poisonous germs the use of which, when successful, produces a state of asepsis or sterility. A part is sterile when it is free from microorganisms.

Surgery

1. Potential cautery, as nitric acid, or silver nitrate, Monsel's solution or burnt alum. Proud flesh can be removed by snipping it off with the scissors and applying 50 per cent silver nitrate; a solution of adrenalin may be applied if necessary to arrest hemorrhage.

2. Is a condition due to entrance of bacteria, or their toxic products, into the body, and is characterized by local inflammation and general disturbances, or, poisoning by the products of a putrefactive process.

3. (a) Trauma, but majority, if not most all cases are due to ill-fitting footgear, too short and too narrow, combined with too high heels, as well as by a shoe that does not fit snugly at shank and at heel, foot slipping forward into tip of shoe when walking, toe abducting from median line of body to accommodate itself. This is accompanied by inflammation of bursae at the inner side of the metatarsophalangeal joint of the great toe, causing swelling, severe pain; it may involve the entire joint, resulting in caries and can produce a condition of ankylosis of this joint.

(b) If suppuration has occurred, open joint, drain, and if diseased, curette. Antiseptic dressings are to be applied. If there be no suppuration, protect the parts with a well-fitted, skived shield, and apply ichthyol ointment, 10 per cent, or ichthyolated collodion 15 per cent, to relieve inflammation or congestion. In severe cases, the orthopedic surgeon is called into consultation to determine whether or not a radical operation is advisable.

4. Local reaction against injurious influences, characterized by pain, heat, redness, swelling and histologic changes. Treatment should be in accordance with conditions under observation. If infected by microorganisms, incise, drain and apply evaporating wet dressings, using mild antiseptic solutions as, liquor Borow; or bichloride of mercury, 1-5000 to 1-8000, it needed, over a long period of time. Best to alternate these two dressings every 48 hours, to reduce possibility of systemic poisoning by absorption. If no infection be present and skin is unbroken, apply cold applications in form of compress or packs, or evaporating solution, or heavy dressings saturated with hot astringent solutions, as Borow's solution, or alum, two to five per cent, covered by gutta percha tissue, or oiled silk, this keeping the dressing warm over a greater period of time and acting as a poultice. The most important anjunct to any condition of this kind is rest to the part.

5. (a) Trauma, in few cases; hypertrophy of lateral edge of nail; short and tight shoes or stockings, injudicious cutting of nail by an inexperienced person. (b) Treatment may be radical, operative or palliative. Where extreme pain is present, and conditions indicate, best results can be obtained by the radical operation, under local anesthesia, and should only be practised when absolutely necessary. The palliative treatment will appeal to the patient most generally, and should be the one instituted whenever possible. Asepticize all instruments, field of operation, and hands of operator. Attempt to determine extent of burying into lateral nail fold, and position in which it lies. With nail clippers, nick the nail at the free border, and with a sharp chisel remove a V-shaped piece, carrying the chisel back toward the root of nail. When freed from adhesions, which may be present, remove with a clamp forceps and probe for remaining jagged pieces of nail. If groove is free and clean, apply tincture of iodine. U. S. P., pack groove with cotton, not too tightly, cut out shoe to accommodate toe, and instruct patient to use a wet dressing of bichloride of mercury 1-5000, for 24 to 48 hours, or Borow's solution. When congestion is relieved, treatment is directed toward training lateral edge of nail, as well as nail flap. In operating such a condition, if proud flesh be present, it should be snipped off or treated with silver nitrate 30 to 50 per cent, and groove well packed, pressure tending to produce local anemia of part, resulting in atrophy of the hypertrophied nail flap. Final dressing may be a simple ointment, to stimulate and hasten growth of normal epithelium over proud flesh and nail groove. Either ichthyol, two to five per cent, or balsam of Peru, five per cent, or Ung. iodi, two per cent will, ordinarily, answer the purpose.

6 Surgical cleanliness; asepsis of hands of operator, field of operation, dressing, instruments, and if in doubt as to a diabetic patient, make analysis test with Fehling's solution, also take the anterior tibial pulse, if skin feels cold and clammy to eliminate the possibility of arthritis obliterans. Asepsis must be practised in all after-are of lesion as to dressings, etc.

7. Gangrene of the part to which it is applied.

8. (a) Hot applications are indicated in conditions where the skin or other tissues are bruised, sprained or torn, when free from bacterial invasion, and are particularly well adapted in ankle sprains, thus also affording comfort to the patient. (b) Cold applications are indicated in suppurative processes to bring about reaction from exposure to cold, after the hot bath, also to produce anesthesia in very quick surgical operations, as in opening an abscess or a boil. Also in a lesser degree to produce a

local anemia to a congested part by constricting superficial blood vessels.

9. Thromb-angitis obliterans by a small particle of blood clot getting into circulation and obstructing lumen of blood vessel; allowing part of a dressing to remain in a wound, and the subsequent healing of wound which would finally break down and ulcerate (due to dressing acting as a foreign body), nature's attempt to rid he body of it. Sepsis from use of unclean instruments, dressings or hands of operator, ankylosis when operating near joint end; gangrene from carbolic dressings after operation; also as a result of patient having diabetes.

10. Obliteration of longitudinal arch on weight bearing, with abduction of forefoot, which does not regain its normal contour when at rest (differentiation from weak foot). It is the advanced stage following weak foot, the heel (upper part) tilts over to inner side of foot on weight bearing, carrying the astragalus downward and inward with it and as this bone transmits the weight from the tibia and fibula, thus obliterating the longitudinal arch, it is caused to roll over entirely toward the inner side; the movements of inversion and eversion, abduction and adduction, flexion and extension are limited, and some of them may be entirely absent; there is a general tired feeling of all the muscles of leg; the pain may extend as high up as the pelvis and

COMING EXAMINATIONS

CALIFORNIA: — Sec'y State Board of Medical Examiners, San Francisco, Cal.

COLORADO:—Denver, Oct. 1, and Jan. 7. Sec'y State Board of Medical Examiners. Denver, Colo.

CONNECTICUT:—Hartford State Capitol, Nov. 11, Sec'y Thos. H. Farrell, 647 Main St., Hartford, Conn

DISTRICT OF COLUMBIA:—W. C. Fowler, M. D., Health Office, Washington, D. C.

ILLINOIS:—Nov. 15, Sec'y John Kenison, 14 W. Washington St., Chicago, Ill.

LOUISIANA:—New Orleans, November. Sec'y State Board of Medical Examiners. New Orleans, La.

MARYLAND:—Sec'y Harry P. Clifton, 712 Union Trust Bldg, Baltimore, Md.

MASSACHUSETTS:—W. P. Bowers, M. D., Sec'y Board of Registration in Medicine; Boston, Mass.

MICHIGAN:—B. D. Harison, M. D., Sec'y State Board Registration in Medicine, 50 Washington Arcade, Detroit, Mich.

NEW JERSEY:—Trenton, Oct. 21, 22 Alexander McAllister, M.D State House, Trenton, N. J.

NEBRASKA:—H. F. Gartner, M. Cp., Sec'y, First National Bank Bldg., Lincoln, Neb.

NEW YORK:—Albany, Buffalo, New York, Syracuse. Examination Division. Regents of State of New York, Albany, N. Y.

NORTH CAROLINA:—Charlotte. Sec'y, L. C. Weathers, 117 1-2 Fayetteville St., Raleigh, N. C.

OHIO:—Columbus Dec. H. M. Platter, M.D., Sec'y, State House, Columbus, O.

RHODE ISLAND:—Charles T. Heilborn, Journal Bldg, Providence, R. I.

VIRGINIA:—Richmond, Dec. 10 ,12. Sec'y State Baerd of Medical Examiners, Richmond, Va.

WEST VIRGINIA:—Charleston, Oct. 14. Sec'y S. L. Jepson, Charleston, W. Va.

WASHINGTON:—Spokane. Sec'y G. R. Davis, 307 Seaboard Bldg., Seattle, Wash.

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Wife: You leave it to the doctor, dearie, 'e knows best!

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With thanks to the PROFESSION OF CHIROPODY for fast favors, and soliciting a continuance of its further valued courtesies, I am

Cordially yours

LEO HART.

New York, September 15, 1919.

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Because they know

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Because they know

that Van Hart shoes will benefit and please their patients.

Because they know

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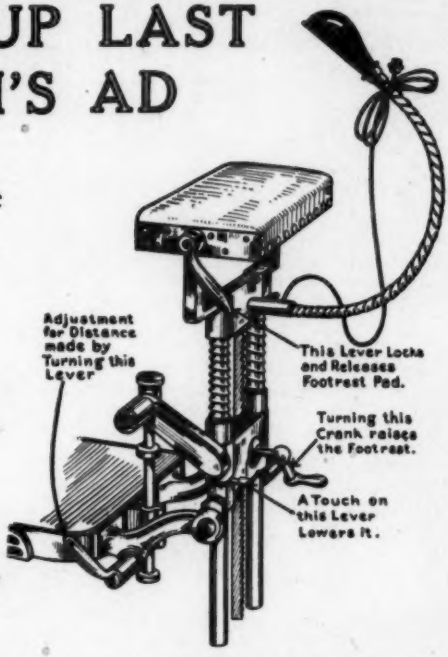
Adjustment for Distance made by Turning this Lever
This Lever Locks and Releases Footrest Pad.
Turning this Crank raises the Footrest.
A Touch on this Lever Lowers It.

THE feature of most importance to the chiropodist is the adjustable foot rest, for it is his operating table. ¶ So the KOKEN foot rest has been designed to give the greatest range of adjustment with the fewest possible movements and the greatest ease on the part of the chiropodist.

¶ The mechanism is perfectly simple and simply perfect. Turning the crank raises the rest to the desired height. A touch on the lock pinion lowers it. ¶ Here's the change. Instead of the worm-screw for obtaining distance toward or away from the chair, we have installed a lever. A lift upwards releases the foot rest, for adjusting and a downward push secures it in place—speedier and easier. ¶ A lever releases or locks the revolving two-sided pad, upholstered on one side for operating and protected on the reverse with a nickelplated plate for the patient's use while removing shoe.

¶ Every control is right at the hand of the operator, all adjustments being made at the stool.

¶ The range in height and distance toward and away from the chair is greater than on any other chair manufactured.

¶ It is the only perfectly adjustable foot rest on the market, and a comparison with that on any other chair will demonstrate its unquestioned superiority.

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We pride ourselves on the superior quality of our preparations. These products are not placed on the market until they have been thoroughly standardized in the laboratory, both chemically and therapeutically.

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O. Z. SOFT CORN OINTMENT

A reliable preparation for the relief and cure of soft corns, sinuses, ulcers and broken toe web. This ointment is especially prepared to dry out all moist pockets of the toe web. Will soothe and heal inflamed tissue.

SAL-O-SAV
A Salicylic Compound (50%)

For corns, callouses, warts; apply on any hard tissue growth or excrescences of the foot, cover with gauze, cotton or pad, repeat every other day for a week and remove the growth. For excessive perspiration, use in combination with **Dr. Wilms' Bor-Al-Sal** by massaging the sweaty saturated parts about eight hours after Bor-Al-Sal has been applied.

Dr. Wilms' TRU-FOOT ITCH-EASE

Is a non-irritating astringent and healing ointment for all surface lesions and inflamed skin.

SILVER (A G N O/3) OINTMENT

Is indicated in the treatment of suppurated and ulcerated corns, infections, and ingrown nails. Is recommended after treating corns, callouses or bunions.

ICHTHYOL OINTMENT COMPOUND

For inflammations, abrasions, ulcers and skin diseases. Stimulates healthy granulation. Is a reliable antiseptic.

TRU-FOOT MASSAGE BALM

For massaging the foot, gives elasticity to the skin tissue, relieves foot irritation, is soothing and healing.

HEALING OINTMENT

A specially prepared Ointment to apply after removing corns, callouses, treating bunions and other lesions of the foot or hand. Especially recommended in inflamed or irritable conditions between toes and other tender and inflamed tissue.

COMPOUND CAMPHOR OINTMENT

Is indicated in the treatment of simple corns, callouses, bunions and especially on soft corns. Instantly relieves tender irritable tissue.

COMPOUND MENTHOL OINTMENT

Will allay inflammation and irritation, promotes healthy tissue growth. Is remarkably soothing. Apply on corns, callouses and bunions. 1 oz. jar 50c ea. Doz. $4.50. Assorted if you like.

Dr. Wilms'
BOR - AL - SAL
STOPS EXCESSIVE PERSPIRATION
A Cure for all Offensive Odors of the Skin

BOR-AL-SAL is a liquid preparation for all conditions of excessive perspiration, Bromidrosis or Hyperhidrosis of the foot or other parts of the body.

Bor-Al-Sal is safe, is a powerful antiseptic and positively destroys all offensive and disagreeable odors of the foot and other body tissue.

The first application will prove its merits. Safe to apply. Most cases can be cured in from 10 days to 2 weeks.

4 oz. Bottle $1.00 each

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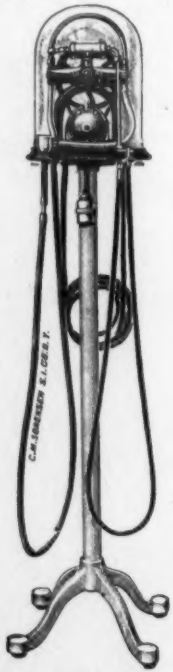
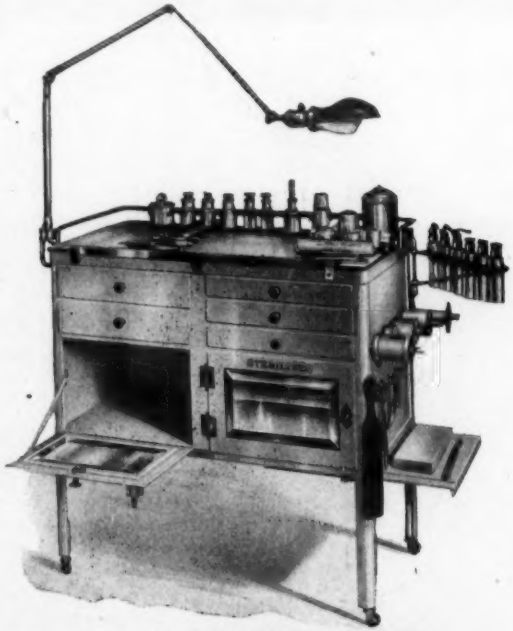


Sorensen Air Compressor No. 50



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HELP FEET To Comfort

NATHAN

Combination-Adjustable

FOOT FITS ANY SHOE ARCH

Flexible—Cushioned—No-Metal

Cause of Most Foot Troubles Most foot troubles result from **disarranged bones** due to weakened ligaments or muscles, causing pain and discomfort which frequently affect the calf, knee, thigh, hip or back. **The disarranged bones** also cause calloused spots.

Nathan Foot Arch Corrects These Conditions The "Nathan" Combination Foot Arch comfortably lifts the **disarranged bones** of the main arch and the forward, or metatarsal arch, into normal position; the pressure or strain is immediately relieved, and pain, discomfort, and callouses disappear. They relieve the strain yet their degree of flexibility allow the muscles to exercise and grow strong.

CALLOUS
Sectional View Showing How FORWARD Arch is Raised
Side View Showing How the MAIN Arch is Raised
Adjustable Rubber Pad to be placed immediately back of Calloused Spots

Style No. 273

Endorsed by Leading Physicians Endorsed by leading physicians and chiropodists because "Nathan" Arch Supports are the nearest approach to Nature's Foot Arch in flexibility and strength that Science has ever devised. Used by thousands of satisfied patrons for the past sixteen years.

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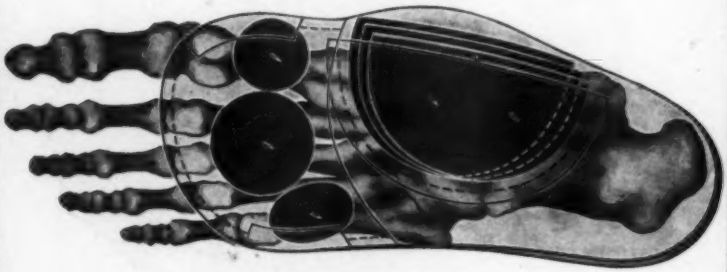
Manufacturers of the Famous Nathan Ventilating Corset Ankle Supports.

The Foot Corrector

Makes Experts of Us All



So simple yet so perfect.

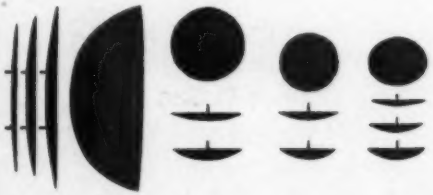
Prices:

Foot Corrector, as illustrated. **$24.00** doz. pr.

Arch Corrector for longitudinal arch only — **$15.00** doz. pr.

Metatarsal Corrector for metatarsal arch only— **$15.00** doz. pr.

Immediately you see it you will admire its **lightness**—its **flexibility.** You will notice its shape and outline, and you will say:—"Here is a device moulded from the human foot."



It allows you to make any adjustment — low, medium, high—forward or backward —from the extreme right to the extreme left — in both the center and forward arches. No other appliance permits this. And then, these very inserts—no matter where they're placed, lock themselves to the appliance and then lock the FOOT CORRECTOR to the shoe.

The Wonder Mfg. Co.

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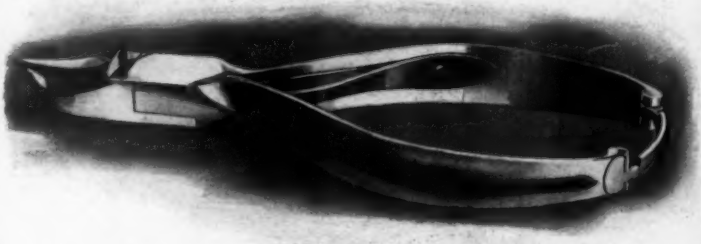
A skillful research into the possibilities of betterment in Chiropody instruments has enabled us to build real service in a Nail Nipper. The Nail Nippers, as illustrated below, are of the finest French hand forging and finish and made in strict conformity with our rigid specifications. It has a highly tempered steel spring and lock, and with its sharp-cutting edges has a distinct superiority over the average instrument.



No. 500 F—Size 4½ in. and 5 in., hard polished finish, concave jaws. Special price, cash with order - - - - - - $6.00

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In A Jocular Mood

By Paul Schleisner

It may be possible for three persons to keep a secret, provided two of them are dead.

When I am dead and in my grave,
I hope my weeping folks will see,
That roots of trees that o'er me wave,
Don't grow way down and tickle me.

If you are happy don't try to prove it.

When I was ten and she fifteen,
Ah me! How fair I thought her,
She treated with disdainful mien
The homage that I brought her,
And in a patronizing way,
Would of my shy advances say:
"It's really quite absurd, you see,
He's very much too young for me."

I'm twenty now, she twenty-five,
Well, well! How old she's growing.
I fancy that my suit will thrive,
If pressed again, but owing
To great discrepancy in age,
Her marked attentions don't engage,
My young affections, for you see
She's really quite too old for me.

As we gallop to press, we stop to tell the world that Dr. Waltz is a chiropodist in the Bronx.

Habits, reputations and opinions are ever changing, but character is always the same.

There is a good chance for a live chiropodist to purchase a practice in a city of 30,000. No competition. Established 12 years. Address Margaret E. Stryker, Pontiac, Mich.

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Your patients go to you for relief from pain. What preparation have you which will surely and quickly stop pain?

Many competent and successful chiropodists are using Byrud's Guaiawin Comp. with wonderful results in immediately stopping pain and reducing inflammation in a remarkably short time.

Byrud's Guaiawin Comp. gives positive results in the treatment of painful and inflammatory conditions such as Bursitis, Painful Bunions, Metatarsalgia, also after operating on ingrowing toe-nails which have become infected and to clean up pus conditions caused by infected corns.

Price $1.25. Sent postage paid.

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ALL GOODS DELIVERED FREE OF CHARGE

BELMONT HEALING OINTMENT

For General Use in Chiropody Practice

After the removal of corns and callosities, and for the various minor lesions which the busy chiropodist is called upon to treat daily, the Belmont Healing Ointment will be found a vlauable aid. It may be safely used in all cases where a special medicament is not indicated, its antiseptic properties insuring a perfect sanitary dressing.

The base of the Belmont Healing Ointment contains no mineral oils, and is readily absorbed by the tissues, admitting the full therapeutic value of the active ingredients employed. Directions: Apply with the aid of a shield, or spread upon lint, and protect with Fish Skin. **Price 50c per jar.**

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Ointment of Subacetate of Lead

This well known astringent ointment, rightly finds favor with many chiropodists. As a dressing for inflamed corns and bunions, this remedy will be found to possess similar sedative properties to the Solution of Lead Subacetate, allaying inflammation in congested areas in a marked degree. Apply in conjunction with a shield wherever possible. **Price 50c per jar.**

STERILE LINT

Cut for the convenience of chiropodists. Sterilized after packing.

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GERMINOL

The Scientific Foot Powder

does not clog up the pores, neither does it cover up an offensive odor by the use of a pungent antiseptic chemical. By chemical action it destroys the odor arising from Bromidrosis, and at the same time promotes a more healthy action of the numberless sweat glands of the feet, thus giving permanent relief.

Price, 30c per jar, $3.50 per doz. Delivered free in any quantity.

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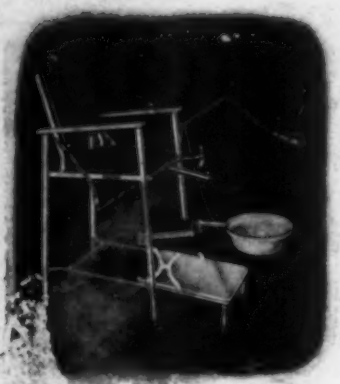

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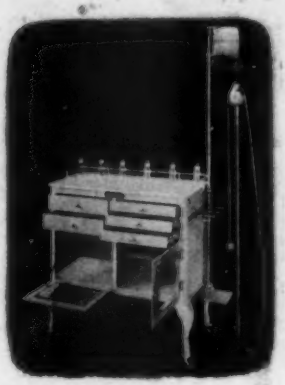
Electric Lamp attached, extra $7



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